



**US Army Corps  
of Engineers**  
New Orleans District

**CULTURAL RESOURCES SERIES**

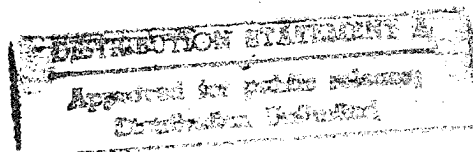
**Report Number: COELMN/PD-95/04**

---

**CULTURAL RESOURCES SURVEY OF FOUR  
DISPOSAL AREAS ALONG THE VERMILION RIVER  
LAFAYETTE PARISH, LOUISIANA**

**PRENTICE THOMAS AND ASSOCIATES, INC.  
124 Shell Avenue, SE  
Fort Walton Beach, FL 32548**

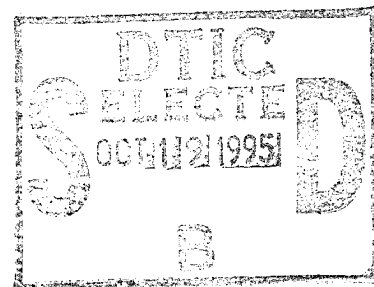
**FINAL REPORT**



**MAY 1995**

---

**Prepared for  
U. S. Army Corps of Engineers  
New Orleans District  
P. O. Box 60267  
New Orleans, LA 70160-0267**



**Unclassified. Distribution is Unlimited.**

**DTIC QUALITY INSPECTED 6**

19951018 070

## REPORT DOCUMENTATION PAGE

Form Approved  
OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION Unclassified. Distribution is unlimited.			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION / AVAILABILITY OF REPORT		
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE			Unclassified. Distribution is unlimited.		
4. PERFORMING ORGANIZATION REPORT NUMBER(S) PTA Report of Investigations No. 270			5. MONITORING ORGANIZATION REPORT NUMBER(S) COELMN/PD-95/04		
6a. NAME OF PERFORMING ORGANIZATION Prentice Thomas and Associates, Inc.	6b. OFFICE SYMBOL (if applicable) PTA	7a. NAME OF MONITORING ORGANIZATION New Orleans District, US Army Corps of Engineers			
6c. ADDRESS (City, State, and ZIP Code) 124 Shell Avenue, SE Fort Walton Beach, FL 32548		7b. ADDRESS (City, State, and ZIP Code) P.O. Box 60267 New Orleans, LA 70160-0267			
8a. NAME OF FUNDING / SPONSORING ORGANIZATION	8b. OFFICE SYMBOL (if applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER DACW29-94-D-0021: Delivery Order 1			
8c. ADDRESS (City, State, and ZIP Code)		10. SOURCE OF FUNDING NUMBERS			
		PROGRAM ELEMENT NO. N/A	PROJECT NO. Civil Works Funding	TASK NO.	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) Cultural Resources Survey of Four Disposal Areas along the Vermilion River Lafayette Parish, Louisiana (Unclassified)					
12. PERSONAL AUTHOR(S) Meyer, Joseph S.; Morehead, James R., Gibson, Jon; Blanchard, Carey; Campbell, L. Janice; and Thomas, Prentice M., Jr.					
13a. TYPE OF REPORT Final	13b. TIME COVERED FROM Nov 1994 TO May 1995	14. DATE OF REPORT (Year, Month, Day) 1995 May		15. PAGE COUNT 125	
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP			
05	06		Prehistoric, historic, cultural resources management, intensive survey, Vermilion River, disposal area		
19. ABSTRACT (Continue on reverse if necessary and identify by block number)					
<p>This document presents the procedures and findings from a cultural resources survey of four proposed disposal areas along the Vermilion River in Lafayette Parish, Louisiana. Field work for the project, covering just under four acres, was conducted in November 1994. Each area was investigated with a combination of surface reconnaissance and subsurface testing. Aside from recent historic material, no cultural resources or significant standing structures were identified. No further work is recommended at any of the four areas.</p>					
20. DISTRIBUTION / AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION Unclassified		
22a. NAME OF RESPONSIBLE INDIVIDUAL Michael E. Stout		22b. TELEPHONE (Include Area Code) (504) 862-2554		22c. OFFICE SYMBOL CELMN-PD-RN	



DEPARTMENT OF THE ARMY  
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 60267  
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO  
ATTENTION OF:

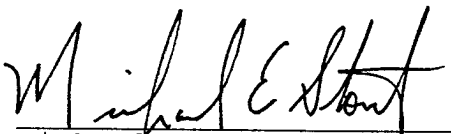
March 30, 1995


Planning Division  
Environmental Analysis Branch

To The Reader:

This cultural resources effort was designed, funded, and guided by this office as part of our cultural resources management program. Documented in this report is a cultural resources survey of four proposed disposal areas required by maintenance activities on the Vermilion River in Lafayette Parish, Louisiana. The purpose of the survey was to determine if significant archeological or historical resources are located in the disposal areas.

We concur with the contractor's conclusion that the project will not affect significant cultural resources.

  
\_\_\_\_\_  
Michael E. Stout  
Authorized Representative  
of the Contracting Officer

  
\_\_\_\_\_  
R. H. Schroeder, Jr.  
Chief, Planning Division

Accession For	
MTIS GRA&I	<input checked="checked" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist.	Avail and/or Special
A-1	

**CULTURAL RESOURCES SURVEY OF  
FOUR DISPOSAL AREAS ALONG THE VERMILION RIVER  
LAFAYETTE PARISH, LOUISIANA**

**CONTRACT DACW29-94-D-0021  
DELIVERY ORDER 1**

**BY**

**JOSEPH S. MEYER  
JAMES R. MOREHEAD  
JON GIBSON  
CAREY BLANCHARD  
L. JANICE CAMPBELL  
PRENTICE M. THOMAS, JR.**

**FOR  
NEW ORLEANS DISTRICT CORPS OF ENGINEERS**

**PRENTICE THOMAS AND ASSOCIATES, INC.  
REPORT OF INVESTIGATIONS NO. 270**

**1995**



# TABLE OF CONTENTS

	Page
LIST OF FIGURES .....	vii
CHAPTER ONE: INTRODUCTION .....	1
Scope of Work .....	1
Report Organization .....	1
CHAPTER TWO: ENVIRONMENTAL OVERVIEW .....	3
Geomorphology of the Project Area .....	3
The Prairie Formation .....	5
The Lower Mississippi Valley Alluvial Plain .....	6
Environment .....	8
Drainage .....	8
Soils in the Project Area .....	8
Climate .....	8
Paleoenvironments .....	9
CHAPTER THREE: PREVIOUS INVESTIGATIONS ALONG THE VERMILION RIVER .....	11
WPA, Avocational, and Academic Investigations .....	11
Contract Archeology .....	16
CHAPTER FOUR: PREHISTORY OF THE UPPER VERMILION RIVER .....	19
Paleoindian Period .....	19
Clovis Culture .....	19
Dalton Culture .....	22
Terminal Paleoindian Period .....	23
Archaic Period .....	24
Poverty Point Period .....	25
Tchefuncte Period .....	31
Lafayette Mounds .....	32
Ruth Canal .....	32
Bayou Tortue .....	34
Coulee Crow .....	35
Beau Rivage .....	35
Society and Ceremonialism .....	36
Interregnum .....	39
Plaquemine .....	44
Summary .....	46

## TABLE OF CONTENTS

(Continued)

	Page
CHAPTER FIVE: HISTORIC DEVELOPMENTS .....	47
Exploration and Colonization .....	47
Antebellum Louisiana .....	50
Secession and Reconstruction .....	59
Rural and Commercial Expansion .....	62
CHAPTER SIX: LAND USE HISTORY AND SUCCESSION .....	66
Area B .....	66
Areas C and D .....	69
Area F .....	70
CHAPTER SEVEN: PROJECT PROCEDURES AND FINDINGS .....	73
Procedures .....	73
Study Areas .....	75
Area B .....	75
Setting .....	75
Environment .....	76
Disturbance .....	76
Fieldwork .....	76
Geomorphology/Stratigraphy .....	80
Evaluation .....	82
Area C .....	82
Setting .....	82
Environment .....	82
Disturbance .....	82
Fieldwork .....	82
Geomorphology/Stratigraphy .....	84
Evaluation .....	86
Area D .....	86
Setting .....	86
Environment .....	86
Disturbance .....	88
Fieldwork .....	88
Geomorphology/Stratigraphy .....	89
Evaluation .....	89
Area F .....	90
Setting .....	90
Environment .....	90
Disturbance .....	92

**TABLE OF CONTENTS**  
(Continued)

	<b>Page</b>
Fieldwork .....	92
Geomorphology/Stratigraphy .....	92
Evaluation .....	94
CHAPTER EIGHT: SUMMARY AND MANAGEMENT RECOMMENDATIONS ....	95
BIBLIOGRAPHY .....	97
ARCHIVAL SOURCES .....	109
SCOPE OF SERVICES .....	110

## LIST OF FIGURES

	Page
Figure 1. General location map of Louisiana showing study area. . . . .	2
Figure 2. Pleistocene and Holocene geological features in the project area. . . . .	4
Figure 3. Pleistocene and Holocene Mississippi River courses and deltas in the Lafayette area. . . . .	7
Figure 4. Areas of Acadian Settlement, 1760s. . . . .	51
Figure 5. Areas of Acadian Settlement, 1785. . . . .	52
Figure 6. 1833 Map showing the Attakapas District, Vermilionville and newly established parishes. . . . .	54
Figure 7. Settlement Patterns in the Attakapas. . . . .	55
Figure 8. 1848 Map of Louisiana, showing Vermilionville. . . . .	57
Figure 9. 1874 preliminary post route map of the State of Louisiana. . . . .	58
Figure 10. 1863 map of Union Army route in the project area. . . . .	60
Figure 11. 1895 Louisiana railroads map. . . . .	64
Figure 12. Portion of a 1905 map of the state of Louisiana. . . . .	65
Figure 13. Township 9 South, Range 5 East, 1957 composite of previous state land office plats. . . . .	67
Figure 14. Township 8 South, Range 5 East, 1957 composite of previous state land office plats. . . . .	68
Figure 15. Darby's 1816 map of the project area showing the "Settlement of the Arseneaux family." . . . .	72
Figure 16. Areas B, C and D, Breaux Bridge Quadrangle. . . . .	74
Figure 17. Area F, Breaux Bridge Quadrangle. . . . .	75
Figure 18. Sketch map of Area B. . . . .	77
Figure 19. Photograph of the south side of house. . . . .	78
Figure 20. Photograph of the barn southwest of house. . . . .	78
Figure 21. Photograph of the outhouse. . . . .	79
Figure 22. Backhoe trench profile, Area B. . . . .	81
Figure 23. Sketch map of Area C. . . . .	83
Figure 24. Photograph of trees and cane field in vicinity of Area C. . . . .	84
Figure 25. Photograph of backhoe trench excavation. . . . .	85
Figure 26. Backhoe trench profile, Area C. . . . .	85
Figure 27. Sketch map of Area D. . . . .	87
Figure 28. Photograph of cane field, Area D. . . . .	88
Figure 29. Backhoe trench profile, Area D. . . . .	90
Figure 30. Sketch map of Area F. . . . .	91
Figure 31. Photograph of Area F. . . . .	92
Figure 32. Backhoe trench profile, Area F. . . . .	93

## **CHAPTER ONE INTRODUCTION**

In 1994, Prentice Thomas and Associates, Inc. (PTA) was awarded an indefinite quantity contract to conduct various cultural resources investigations for the New Orleans District, U.S. Army Corps of Engineers (NOD). The contract has a one-year base period with an additional option year.

### **Scope of Work**

Under delivery order 1, PTA was required to conduct a cultural resources survey of four disposal areas along the Vermilion River in Lafayette Parish, Louisiana (Figure 1, see also Chapter Seven [Figures 16 and 17]). The proposed NOD project consists of the removal of debris and shoal material in the Vermilion River at several bridge crossings, and disposal in six proposed sites along the river's immediate banklines and adjacent areas. NOD archeologists examined the disposal sites on September 28, 1994 and determined that two of the areas did not require survey due to heavy disturbance by previous land use. Neither these nor the remaining four areas, which are the subject of this document, had been previously surveyed.

The survey was conducted between November 16 and November 18, 1994. The total amount of acreage encompassed by the four tracts was just under four acres. A total of 48 shovel tests was excavated in the tracts as follows: 10 in Area B; 12 in Area C; 12 in Area D; and 14 in Area F. In addition, a backhoe trench was excavated in each of the four survey areas. No eligible historic properties were identified, although an abandoned homesite, utilized as an unofficial dump, was found in Area B, while an abandoned corral was found in Area C and recent historic discard was observed in Area D. No further work is recommended in any of the four areas.

### **Report Organization**

Chapter Two presents an environmental overview of the project area. Chapter Three is a discussion of previous, relevant archeological investigations. The prehistoric culture sequence is the subject of Chapter Four. Chapter Five describes the historic events of the region, while Chapter Six contains the results of background research on the four project areas. Chapter Seven presents a discussion of the project procedures and findings. Chapter Eight provides a summary of findings and management recommendations.



Figure 1. General location map of Louisiana showing study area.

## CHAPTER TWO

### ENVIRONMENTAL OVERVIEW

#### Geomorphology of the Project Area

Lafayette Parish lies on the central Gulf Coastal Plain, a dissected, gently-sloping surface between the Ouachita and Appalachian Mountains and the Gulf of Mexico. The project area in eastern Lafayette Parish includes landscape features of both Pleistocene and Holocene age. Figure 2, adapted from a Waterways Experiment Station, U.S. Army Corps of Engineers map (1982), illustrates the distributions of these features across the study area. There are two major divisions in the area: the Pleistocene-age Prairie Formation (or Prairie Terrace), which is recognized as having an upper surface and a lower surface, and Holocene-age features, mostly alluvial in nature.

The Prairie upper surface is near survey Area B, although that tract is actually mapped as Holocene backswamp and point bar deposits (refer to Figure 2). Survey Area C is located on the Prairie lower surface. The Prairie lower surface borders on several Holocene landscape features such as abandoned channels, point bar deposits, and backswamps. Area D is near the contact of the Prairie lower surface and backswamp deposits. Area F is mapped as an abandoned channel of Holocene age. The nature of both the Prairie Formation and the Lower Mississippi River Alluvial Valley are considered in greater detail below.

To say that there is lack of agreement on the details of the interpretations concerning the various landscape features and, in particular, their development is an understatement. These differences are conditioned in part by the accumulation of data and changing perspectives over a period of well over half a century, as well as the fact that multiple scenarios are often reasonable—despite being based on what is often essentially the same evidence (*cf. Saucier 1974*). Therefore, we have elected to focus on what seem to be archeologically relevant issues and leave as many controversies as possible to others.

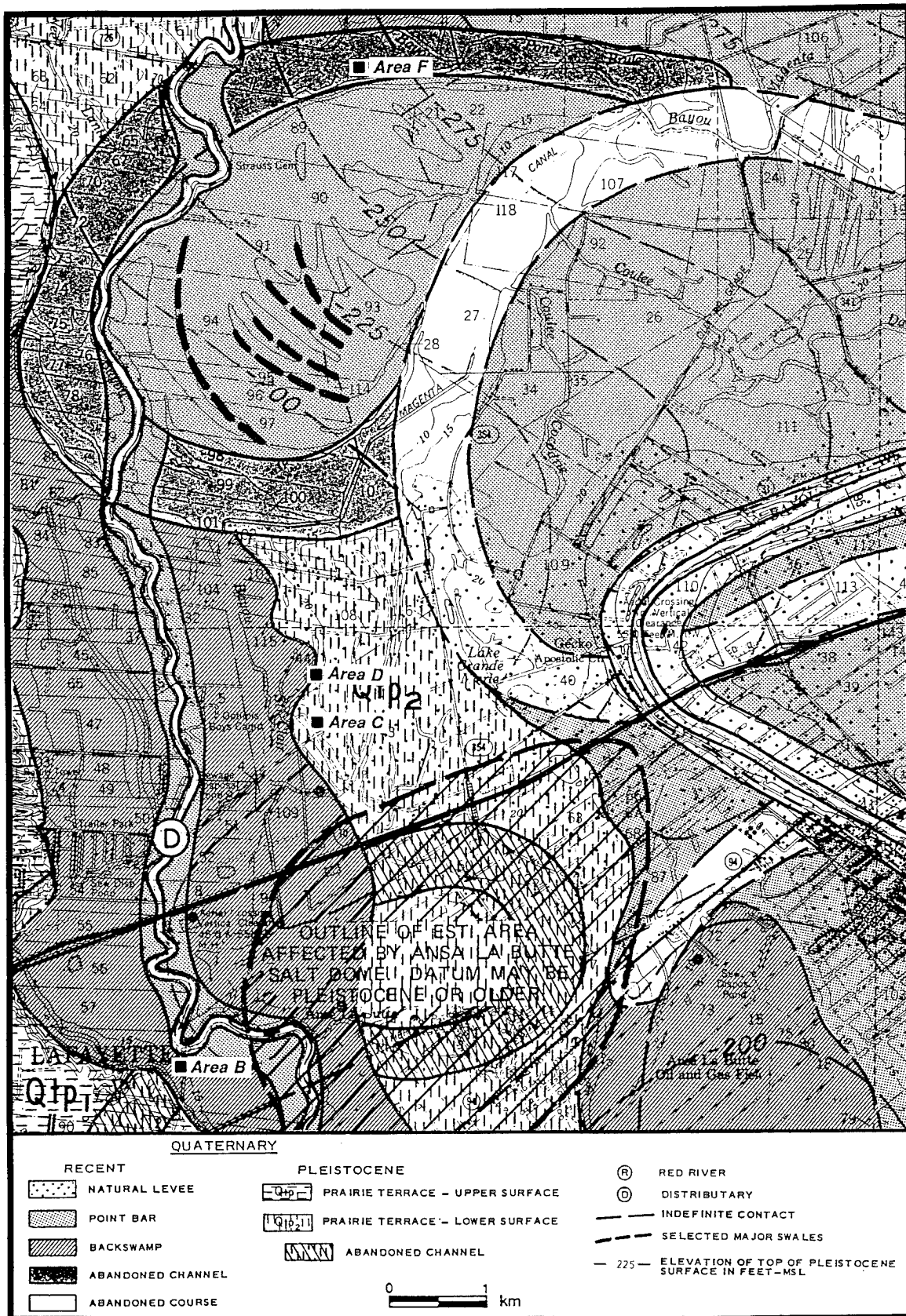


Figure 2. Pleistocene and Holocene geological features in the project area.  
(from *Waterways Experiment Station, U.S. Army Corps of Engineers 1982*)



This section is not intended to be a comprehensive study of the geology and geomorphology of southern Louisiana, but a brief synthetic review, concentrated on those features and events with direct bearing on the development of the landscape and soils of eastern Lafayette Parish. Sources consulted include, but are not limited to Howe and Moresi (1931), Gagliano and Thom (1967), Saucier (1974, 1976), Coastal Environments (1977), USDA (1977), Gibson (1978a, 1990a, 1991a), Lenzer (1982), USDA (1974, 1977), Snead and McCullough (1984), Jeter et al. (1989), and Mossa and Autin (1989).

### **The Prairie Formation**

In Lafayette Parish the Prairie Formation is believed to be a product of alluvial deposition by Mid-Pleistocene rivers, including the ancestral Mississippi and Red Rivers (Saucier 1974:16; USDA 1977; Gibson 1990a). Its deposition is thought to be concurrent with the Sangamon Interglacial, in the 80,000 to 100,000 B.P. range (Saucier 1974:16). The matrix is believed to represent deltaic or alluvial deposits (USDA 1977). Both the upper and lower surfaces of the Prairie Formation are marked by ridge and swale topography left by meanders of the Mississippi River (USDA 1977:3; Howe and Moresi 1931). The gravel deposits which are usually present on higher Plio-Pleistocene formations, such as the Citronelle, have not been found in the Prairie Formation in Lafayette Parish, although such gravels are present on the uplifted Avery Island salt dome some 35km south-southeast of Lafayette in Iberia Parish (Howe and Moresi 1931; Woodward and Gueno 1941).

Subsequently, most of the Prairie surface and parts of the adjacent Mississippi deltaic plain in what is now Lafayette Parish were covered by loess deposits up to several meters thick (USDA 1977; Jeter et al 1989; Gibson 1990a). Exactly how many episodes there were and when is unclear (cf. Saucier 1976). It is clear, however, that there were multiple episodes (Jeter et al. 1989:7) based on the presence of weak soil horizons within the loessal deposits, the earliest of which may be quite ancient (Mossa and Autin 1989; cf. Ruhe 1983). The age of much of it is typically estimated at about 20,000 years B.P. (Saucier 1974; Coastal Environments 1977; Mossa and Autin 1989). The latest may have begun circa 12,000 B.P. based on the presence of mastodon bones near the base of the loess deposits on Coteau Ridge (Gibson 1990a). Loess deposition seems to have ended by Late Paleoindian times, as artifacts of this age have been found on top of loess soils (Gibson 1990a). The Coteau and Patoutville series soils observed in two of the inspected areas, survey Areas C and D, developed in loess deposits on the lower surface of the Prairie Formation (USDA 1977:33, 37).

The western part of the Prairie Formation in Lafayette Parish is believed to be a relict Red River deltaic plain (USDA 1977). However, this interpretation is not universally accepted and some find reason to believe that Mississippi deposits may be found as far west as Cameron Parish. Conflicting interpretations aside, this segment of the Prairie Formation is outside of the project area, and the contribution of the Red River to local geomorphology is primarily within the Mississippi Valley.

## The Lower Mississippi Valley Alluvial Plain

A detailed reconstruction of the geomorphological history of the Lower Mississippi Valley would be redundant, as several sources deal with those topics in detail (*Howe and Moresi 1933; Saucier 1974; Coastal Environments 1977; USDA 1977; Gibson 1978a, 1982; Jeter et al. 1989*). This is a review of what is known or strongly suspected about it.

The western wall of the Lower Mississippi Valley forms the eastern border of the Prairie Formation. The transition from the Prairie to the Lower Mississippi Valley is very abrupt, marked by a steep-sided scarp, known as Coteau Ridge (*Gibson 1990a*) which was cut by the Mississippi River in Holocene times.

Although the Mississippi is believed to have occupied several belts and to have developed corresponding delta lobes in the last 12,000 years (*Coastal Environments 1977*), only a small number of these are directly relevant to the project area (Figure 3). The earliest deposits in the area are thought to have been related to the Lafayette meander belt and delta complex, which was occupied in the Late Paleoindian Period, as well as the Bayou Tortue meander belt and associated Maringouin delta system occupied by the Mississippi River in Early to Middle Archaic times (*Coastal Environments 1977; Gibson 1990a*). These systems have left few identifiable traces in the project area (*Gibson 1990a*), and most of the sediments deposited by them seem likely to have been scoured out by the later Teche-Mississippi and its movements.

The Teche-Mississippi and associated Sale-Cypremont delta lobes were occupied about 6000-4000 B.P. Alluvial deposition associated with the Teche-Mississippi is believed to have begun circa 6000 B.P. and to have ended at about 4700-4000 B.P. (*Saucier 1974; USDA 1977; Coastal Environments 1977*). During this interval, the Mississippi River was flowing in the western part of its alluvial plain. The associated deposits are primarily backswamps and levees in origin (*USDA 1977*). The Vermilion River seems to have acted as a distributary for the Mississippi during this interval (*USDA 1977*).

About 4700 B.P., the Mississippi River seems to have abandoned the Teche system in favor of a more easterly course near Baton Rouge (*USDA 1977*), at which time the development of the St. Bernard delta complex, including the Metairie Lobe, began (*Saucier 1974; Coastal Environments 1977*). This and subsequent Mississippi evolutionary developments have little bearing on the physical depositional history of the project area.

However, the Red River's contributions to eastern Lafayette Parish began at this time. Somewhat earlier, the Red is believed to have joined the Teche-Mississippi upstream. After the Teche system was abandoned by the Mississippi, the Red continued to occupy the abandoned Mississippi course. It was underfit in the old Mississippi channel and made few overbank contributions except for crevasse outbreaks (*Gibson 1990a*) leaving isolated deposits that are the parent material for Gallion soils which are found along the Vermilion's levees (*USDA 1977*), such as are found in Area B.

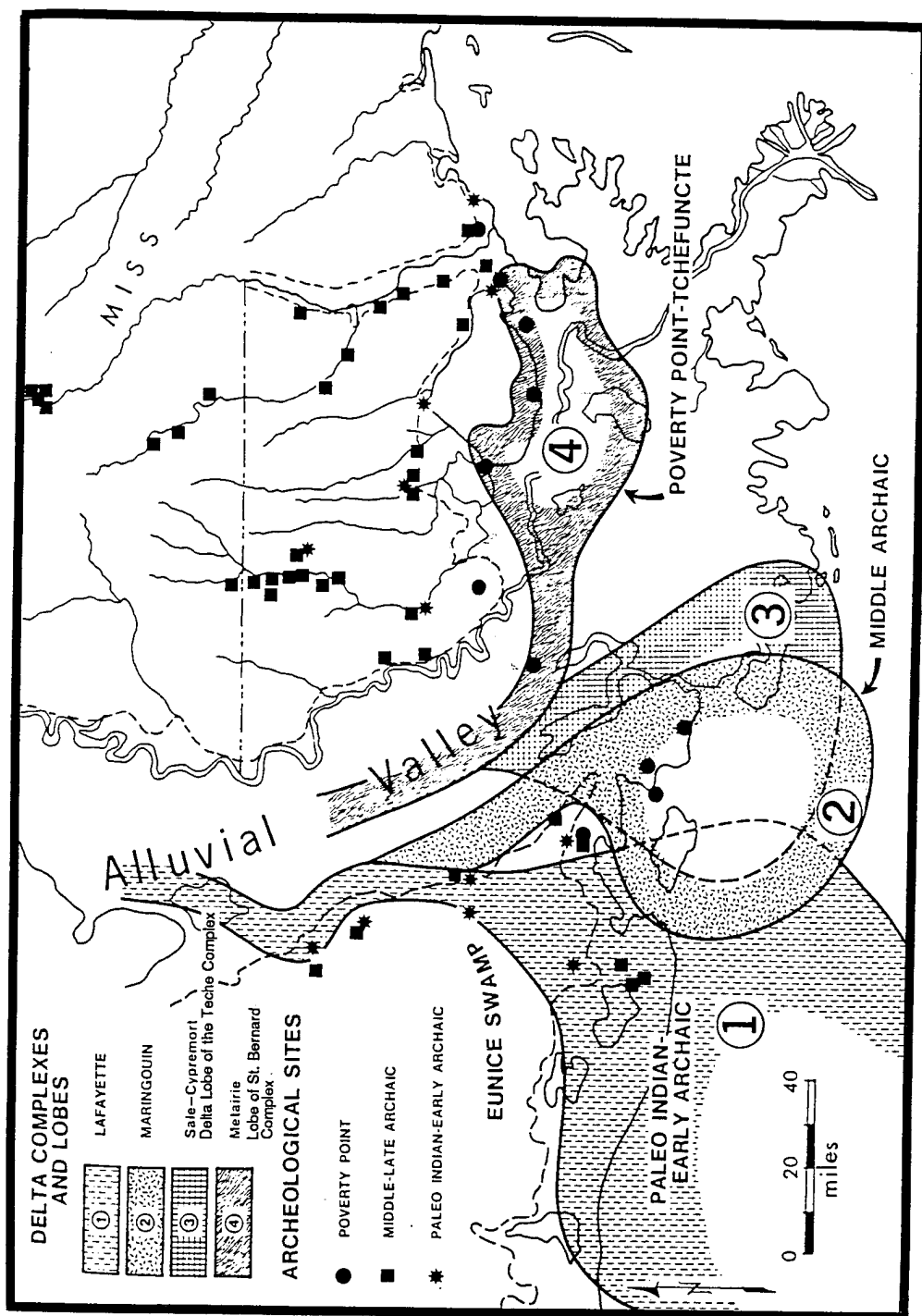


Figure 3. Pleistocene and Holocene Mississippi River courses and deltas in the Lafayette area.  
(from *Coastal Environments* 1977)

## Environment

### Drainage

Lafayette Parish is drained by several streams. The most important are the Vermilion River and its tributaries such as Bayous Fusilier and Tortue, as well as Bayou Carencro and Bayou Queue de Tortue (*Howe and Moresi 1931*). Bayou Fusilier links the Teche and Vermilion systems, and is considered a Teche distributary created when the Mississippi occupied the Teche channel (*Howe and Moresi 1931; Cry 1978*).

### Soils in the Project Area

There are three major soil associations which are found in the general project area. These are the Sharkey-Baldwin-Iberia, the Acy-Coteau, and Memphis-Frost (*USDA 1977*). Sharkey-Baldwin-Iberia soils are described as being poorly drained, clayey to loamy, nearly level, and developed in alluvium (*USDA 1977:7-8*). Acy-Coteau soils are described as forming in loess, being somewhat poorly drained, nearly level, and loamy; these are usually on low terraces adjacent to the alluvial plain (*USDA 1977:8*). Memphis-Frost soils are well to poorly drained, gently sloping, loamy soils which developed in loess matrix (*USDA 1977:8*).

All of the survey areas are mapped as being in the Sharkey-Baldwin-Iberia Association which is noted to have inclusions of other soils (*USDA 1977*). Soil types which are tentatively recognized in the work areas include Coteau, Gallion, Patoutville, and Sharkey. Coteau and Patoutville soils are often types of the Acy-Coteau association, one area of which is mapped to the west of survey Areas C and D; their presence on the lower Prairie surface here seems reasonable. Gallion soils in Lafayette Parish are typically near natural levees of the Vermilion River, often near the Baldwin and Iberia soils of the Sharkey-Baldwin-Iberia association. Sharkey soils are also included in that association.

### Climate

The modern climate of southern Louisiana may be described as humid subtropical (*Muller and Willis 1978*). It is dominated by the presence of the Gulf of Mexico and the warm, humid masses of air which flow off the Gulf. Summers are hot and humid. Winters are marked by short-lived cold spells during which frigid high pressure air masses push through to the Gulf, followed quickly by a return to milder conditions.

Temperatures range from a minimum of 12° to 103° Fahrenheit (-11° to 39° Celsius). Summer maxima average about 90°F, while summer minima are about 71°F; in winter the maxima are 65°F and the minima about 45°F. However, seasonal averages are subject to sharp exceptions: highs may reach 87°F in February, while lows of 45°F may occur in September (*USDA 1977: Table 1*).

Precipitation averages about 57" (145cm) per year, ranging from 45-67" (114-170cm). Monthly precipitation ranges from less than 0.5" to almost 13" (1.3-33cm), but on average is spread through the year (*USDA 1977*). Downpours are not uncommon and stalled fronts may dump as much as one foot (30cm) of rain in as little as 24 hours. Sleet is unusual; hail and snow are also quite rare.

## Paleoenvironments

Quaternary glaciation may be seen as the culmination of a long-term cooling trend which progressed throughout the Tertiary, with glaciations as early as the Pliocene (*Wright 1976*). In the Pleistocene proper, there seem to have been as many as nineteen or twenty, rather than the traditional four, glacial-interglacial cycles (*Pielou 1991:7*), beginning ca. 2,000,000 years ago.

The "normal" climate of the Pleistocene consisted of extended cold spells lasting 60,000-90,000 years during which Europe, Siberia, and North America were partially covered by extensive glaciers, and sea levels were depressed by as much as 100 meters. Interglacials are shorter periods lasting only 10,000-20,000 years each (*M. Davis 1976; cf. Pielou 1991*) during which the ice sheets retreat, sea level rises, and climate is generally warmer.

The details of Pleistocene weather patterns are far from settled, although some disagreements are likely to be due to the sheer complexity of the situation, which has been viewed by many authors from many local perspectives. Although agreement is not universal, there is vegetational evidence to suggest that moisture regimes south of latitude 34° N may have been drier under fully glacial conditions (*Barry 1983*). Pleistocene environments were cooler than today, particularly in glacial and periglacial regions. Non-glacial Late Pleistocene temperature regimes have been variously suggested to be warmer in the winter and cooler in the summer (*cf. Martin and Martin 1984*) or colder in the winter and warmer in the summer (*Dincauze 1993*).

The vegetational changes of the Late Pleistocene in the Eastern United States is summarized by Watts (*1983*). Pine, oak, and hickory were common during the last cold maximum (*Watts 1983; Barry 1983*). Fauna differed in the presence of megafauna and more cold-adapted species, many of which are now extinct. The character and trends in Pleistocene vertebrate assemblages are summarized by Lundelius (*1976*). Details of Late Pleistocene terrestrial vertebrate distributions in North America and the southeast are supplied by Lundelius et al. (*1983*).

The principal interglacial of interest is the current one, known as the Holocene or Recent, which is considered to have begun at 10,000 B.P. (*Pielou 1991:227*). It has exhibited variability in several aspects, not all of which is well-documented in the Lower Valley (*Jeter et. al. 1989:6*). The Holocene has been marked by general amelioration of climate from full-glacial conditions, in particular warming, glacial retreat, sea-level rise, and the establishment of modern circulation patterns.

Although some flora may have been stable by as early as 20,000 B.P. on upland interfluves, the southeastern vegetational community does not seem to have stabilized until about 9,000 B.P. (*Delcourt and Delcourt 1983, cited in Mossa and Autin 1989*) and in some areas is still in flux (*Pielou 1991*). Faunal communities have been marked by sharp changes also (*Lundelius et al. 1983; Pielou 1991*). Some of these changes relate to the migration of cold-adapted species. The sharpest controversies involve the extinction of the large land animals and the role of man in those events (e.g., *Haynes 1991; Pielou 1991*); these topics have incited considerable debate (*Martin 1967; Martin and Klein eds. 1984*).

Perhaps the most dramatic Holocene event is variously referred to as the Hypsithermal or Altithermal period of ca. 6700 to 4500 B.C., during which regimes were warmer and drier than at the present. The Hypsithermal seems to have been the warm peak of the current interglacial (*Pielou 1991:12-22*). It has been suggested that the Lower Mississippi Valley and other large river valleys may have acted as drought refugia at this time. Since then conditions have approached that of today. However, the long-term trend since 4,000-5,000 B.P. has been one of cooling, the Neoglaciation, with lesser variation such as the Little Ice Age and Little Climatic Optimum superimposed (*Pielou 1991:Figure 1.6*).

### CHAPTER THREE

#### PREVIOUS INVESTIGATIONS ALONG THE VERMILION RIVER

The Vermilion River and immediately surrounding area of Lafayette, St. Martin, and St. Landry parishes have received considerable archeological attention during the last 50 years. Investigations started with the Works Progress Administration's (WPA) excavations at the Lafayette Mounds (16SM17)<sup>1</sup> and have continued to the present. Most of the research has been carried out by archeologists from the University of Southwestern Louisiana (USL), who began an intensive campaign of local research and field training for students more than 25 years ago. In addition, a number of small-scale, contract cultural resources investigations have been carried out in the vicinity since 1974, and avocational archeologists have also added their findings to the overall record.

#### WPA, Avocational, and Academic Investigations

The earliest record of archeological sites on the Vermilion River was produced by James Ford and George Quimby, Jr. in their landmark study of the Tchefuncte culture (*Ford and Quimby 1945*). Marriana Evans, daughter of Mr. and Mrs. U. B. Evans and then an English instructor at the Southwest Louisiana Institute (now USL), reported the Lafayette Mounds site and persuaded the Louisiana Works Progress Archeology Program, then working at various sites throughout the state, to excavate the site. Miss Evans's parents were sponsors and friends of James Ford, who was in charge of the program. Ford had, in fact, boarded with the Evans during his earlier National Research Council-supported work in central and northern Louisiana (*Mrs. U. B. Evans, personal communication 1988*). Robert Neitzel and Edwin Doran, Jr. excavated one of the three mounds in 1941, recovering artifacts and human burials dating to the Tchefuncte period.

---

<sup>1</sup>Site numbers are provided for all sites to which formal numbers have been assigned by the State. Where no site number is given, it can be assumed that these sites were identified, but no forms have been filed with the State.

In 1953, William G. McIntire conducted a boat survey of the Vermilion River, looking for archeological sites and landforms which would help him reconstruct and date the shifting deltas of the Mississippi River during the Holocene period (*McIntire 1958*). McIntire was one of the first generation students of the so-called "Man and Land" paradigm, which developed at Louisiana State University out of collaboration among a small but notable group of geologists, geographers, and anthropologists (*Gibson 1982:295*).

McIntire reported three sites along the Vermilion River, two of which were in Lafayette. One of his sites, Simpson Bourg (16LY2), seems to correlate with the Beau Rivage site (16LY5) or, perhaps, a rumored and now destroyed site, called Indian Mound Road, after the name of a city street in River Oaks subdivision. The other McIntire-reported site, Martin (16LY3), corresponds to the general location of Paul Breau School site (16LY22), about a half kilometer or so downstream from the location of Simpson Bourg.

Both of these sites were razed in the 1960s. Descendants of the late Pierre Martin report that Martin had collected many points from the Paul Breau School area decades earlier when the land was in cotton cultivation (*Pierre L. Martin, Jr., personal communication 1971*). McIntire's surface collection of pottery from Martin indicated several occupations—Tchefuncte (Alexander Pinched, Tammany Punctated, Tchefuncte Incised, and Tchefuncte Stamped), Marksville (Marksville Incised *var. Marksville*), Sicily Island (French Fork Incised, Churupa Punctated, Rhinehart Punctated, and Mazique Incised *var. Mazique*), Coles Creek (Coles Creek Incised, Pontchartrain Check Stamped, and Beldeau Incised), and Plaquemine (Plaquemine Brushed and Maddox Engraved) (*Gibson 1976a: Table 21*). Additionally, a substantial part of a collection of over 2000 points, donated to USL by the Martin family, reportedly came from the site. The collection primarily contains Archaic point types, but because it also has points from other sites, it is not as revealing as it could have been if the materials had been labelled by provenience. Land-filling and landscaping connected with the construction of Paul Breau School have obscured all traces of the site today.

The Indian Mound Road site has also been largely destroyed. This site is in the area of the old Chargois springs and has been a desirable place for settlement for a long time. Local residents remember several Indian mounds being destroyed and quantities of pottery scattered about when the streets and lots were landscaped in the 1960s.

The only other activities along the Vermilion before the 1960s that left an official site record were those of avocational archeologists. One of those was Thomas Johnson, a petroleum engineering consultant and former president of the Lafayette Chapter of the Louisiana Archeological Society. Johnson found several sites along the Vermilion River and made collections, which he subsequently brought to the attention of USL archeologists. Two of the most notable sites were the Bayou Tortue site (16LY61) and the Beau Rivage site (16LY5), located on opposite corners of the junction of Bayou Tortue and the Vermilion River. The Bayou Tortue site will be described shortly, but Johnson's youthful excavation of two human burials from the Vermilion bankline at Beau Rivage remain the only record of a part of that site, which is now covered with tennis courts, a country club parking lot, and an apartment building.



The other active avocational archeologist was Charles Bollich, now a professional rice agriculturalist and frequent contributor to the journals and meetings of the Louisiana and Texas archeological societies. Bollich collected several sites in the general area, but his work at the Ruth Canal site (16SM20) on the Vermilion River, about eight kilometers from the Beau Rivage site, is of relevance here. Bollich donated his Ruth Canal collection to USL in 1975; the collection contains materials apparently dating to a heretofore unrecognized cultural interval between the Poverty Point and Tchefuncte periods or perhaps, alternatively, reflecting a geographically unique expression of Late Poverty Point or Early Tchefuncte material culture.

Following these early investigations, the next activities along the river were carried out by USL archeologists, as field-training exercises for anthropology students. These activities started in 1969, when Jon Gibson joined the USL faculty, and have continued to the present.

The first USL excavations took place under Gibson's direction at the Bayou Tortue site in 1969-1972, where a cross-cutting series of a dozen, aligned, five by five foot test squares revealed a vertically and horizontally stratified site containing Tchefuncte, Issaquena, Troyville, Sicily Island, Coles Creek, and Plaquemine components (*Gibson 1976a: 56-63*). This important site, located at the junction of the Vermilion River and Bayou Tortue, was largely destroyed during construction of the north-south runway at the Lafayette Municipal Airport, but not before some of the test pits were completed. However, the site had been a popular digging spot for years, and the meter thick black earth midden was already badly cratered at the time of excavations.

The next university work of consequence on the Vermilion River was the excavation of the Trappey Mastodon (16LY63) in 1970 (*Gibson and Miller 1973*). The Trappey Mastodon was discovered along the right descending bank of the Vermilion River, just west of the southbound lane of U.S. 90 (Evangeline Throughway). The initial discovery was made by workmen digging a wastewater treatment facility, and subsequently an area of about 200 square meters was stripped by gradall and hand in hopes of uncovering more bones and artifacts. The initial finds consisted of a few scattered bones and teeth of a mastodon (*Mammut americanum*), as well as two projectile points of Marcos type recovered from dirt mechanically excavated from the area of the bones before the archeological excavations began. The possible association of Archaic projectile points with the bones of an extinct elephant made this find a potentially important one in Eastern North American prehistory, where direct associations between extinct fauna and early man artifacts are nearly nonexistent. Subsequent controlled excavations uncovered additional mastodon bones but no more artifacts.

Two radiocarbon dates, one obtained on a tooth and the other on a piece of the scapula, produced assays of 11,960 and 6280 years ago respectively (*Gibson and Miller 1973:6*). The dates are both too early for the projectile points, which are typical of late Middle and early Late Archaic point styles in the Lower Mississippi Valley (ca. 5500-3500 B.P.). The occurrence of these points in proximity to the mastodon remains was apparently fortuitous, and the association spurious. These points did not kill the mastodon, nor did the hunters who may have roamed the Vermilion banks manufacture them when mastodons were still living.

The wide gap between the radiocarbon assays makes the age of the mastodon conjectural. The older date based on the tooth, which is denser and therefore less subject to contamination from its burial environment, yields the most satisfying age—that is, unless one believes the subtropical Gulf Coast was a refugium for Pleistocene megafauna. The older date is also preferable in light of the stratigraphic position; the mastodon remains rested on the eroded surface of a graveliferous fluvial deposit (which was probably a channel bar deposit relating to the Lafayette meander belt activity) at the base of a four meter thick section of Peoria loess. Nowhere in the Lower Mississippi Valley are there reasonable indications that loess continued to accumulate as late as 6300 years ago (the age suggested by the second radiocarbon date). It had ceased by at least 9500 years ago. Thus the Trappey Mastodon seems to have died naturally and was covered by wind-blown dust.

After the Trappey excavation, the next project, carried out in 1973 and 1974 under Gibson's direction, was a systematic survey of the lowland lying between the Coteau Ridge and Bayou Teche and between the head of the Vermilion River in the north and Spanish Lake in the south. This project entailed pedestrian survey of half kilometer wide east-west transects selected to produce a 25 percent stratified sample of the locality. The primary aim was to produce an unbiased geographic sample of sites, which would enable reconstruction of settlement and land tenure patterns in all parts of the locality, not just along the river banks, where nearly all previous investigations had been concentrated. Investigators wanted to see if people preferred to live and work up on the escarpment, out in the swamps, in the wet meadows, on the tops of salt domes, or along the various kinds of streams which drained these environments. Although 32 transects were picked for investigation, only three were ever fully surveyed. Two of these transects, the so-called Lake Martin and Long Bridge transects, originated in the city of Lafayette and ran eastward, crossing the Vermilion River and reaching deep into St. Martin Parish. Six prehistoric sites were found along the Lake Martin transect and one along the Long Bridge corridor (*Gibson 1990a:22*).

After this survey, attention shifted back to the Vermilion River, to the Coulee Crow site (16SM15), a few kilometers upstream from the Bayou Tortue site, located at the confluence of the Vermilion River and Coulee Crow, a small now blocked channel that once drained the large Bayou Tortue Mississippi meander scar which trimmed the edge of the Coteau Ridge (or Mississippi Valley escarpment in this locality) at the point where the Vermilion River cuts through it.

Local lore maintains that three low conical mounds once stood on the spot, but a tattered remnant of one mound is all that remains today. Human bone fragments were noticed in the scree around this stub, but the mound was not tested. A dark earth midden covering more than 5000 square meters and reaching nearly 1.5m thick in places lines the river and coulee banks. Excavations took place, on and off, from 1974 to 1977. A total of 11, five by five foot test units was excavated, representing a one percent simple random sample of the shovel test-delimited area of the site. Coulee Crow represents a single component Tchefuncte site.

While the Coulee Crow work was ongoing, another site on the Vermilion River commanded attention. Beau Rivage (16LY5) was located on the north bank of the Vermilion, opposite the mouth of Bayou Tortue, at the point where the river cuts through the Pleistocene terrace escarpment (hereafter, called the Vermilion gap). This is the previously mentioned site where Thomas Johnson had dug up the two burials in the 1950s. It came to light when the area was being leveled to build a new apartment complex.

A black earth midden, covering at least 1500 square meters, and probably much more, was exposed, and large quantities of artifacts were uncovered. The builders would not permit archeological excavations, but a few hurried surface collections, made before concrete was poured, revealed an extraordinarily rich Poverty Point cultural assemblage, along with some later Issaquena, Troyville or Sicily Island, Middle Coles Creek, and Plaquemine materials (*Gibson 1976a:68-75*).

USL's investigations of the early 1970s disclosed a sizeable Tchefuncte occupation on the Vermilion River. In fact, Tchefuncte components outnumbered sites of any other period (*Gibson 1990a*). This may only reflect the length of the Tchefuncte period, which lasted for some 700 to a thousand years, but the large number of components made Tchefuncte land use particularly suitable for analysis. It was found that Tchefuncte site locations correlated with the distribution of silt loam soil and elevated spots in the swampland, as well as with environmental boundaries, or seams, where economic access to several catchment zones (river, swamp, prairie, and high terrace) from single locations would have been maximized (*Gibson 1974a:85-88*).

This dispersed, but environmentally selective pattern was envisioned as a consequence of three factors—population expansion brought on by demographic growth, shifts in local exchange relations from predominantly utilitarian to predominantly status-validating contexts, and changing political conditions, which consolidated power in a social context that was really not suited to handle it (*Gibson 1979:88-92*). This interpretation of the Poverty Point-Tchefuncte transformation on the Vermilion River is not as appealing today, because Poverty Point societies are no longer generally regarded as chiefdoms, like they were the 1970s (*Gibson 1974a*). Classifying archeological units into static ethnographic archetypes, such as bands, tribes, chiefdoms, and primitive states, never really ever helped explain cultural organization or evolution anyway.

The historical truth of what transpired along the Vermilion during the first millennium B.C. has nothing to do with one socio-political type replacing another but everything to do with changing land tenure systems, which seem to have been instituted not so much by changing technological or food-procurement strategies as by organizational changes, probably related to demographic expansion and the diminishing role of local and foreign exchange.

The work at Coulee Crow and Beau Rivage are the latest intensive university activities on the Vermilion River in or near Lafayette. However, USL continued to excavate selected sites in the general area. A. Frank Servello conducted test excavations in the Meche-Wilkes Mound (16SL18) on Coulee de Marks between Grand Coteau and Arnaudville in the late 1970s. Coulee

de Marks is a tributary of Bayou Fusilier, which is the eastern head branch of the Vermilion River. Gibson continued excavations there in 1989-1991. This site has a low conical mound filled with fragments of Poverty Point objects as well as fiber-tempered and untempered Tchefuncte-like pottery, surrounded by a midden containing untempered Tchefuncte-like pottery (*Gibson 1990a:109-111, 117-118, Tables 26-27*). The fiber-tempered pottery is similar to that from the Ruth Canal site, 20km to the south, and these sites, along with a few others bearing fiber-tempered wares in the locality, probably represent a very narrow time interval around 1000 B.C.

Other excavations in the vicinity were conducted in 1986-1987 at the Paul Blanchet site (16LY9) on the Coteau Ridge between Broussard and St. Martinville, a site Gibson first tested in 1971-1973. This site is about 20km south of Lafayette. Blanchet had three major occupations: Poverty Point (*Gibson 1994a*), Tchefuncte, and an unspecified Baytown component. In 1988-1989, Gibson also tested Bayou Portage Guidry (16SM38), a large Plaquemine mound site, near Henderson on the edge of the Atchafalaya Basin about 30km east of Lafayette. Although data and impressions resulting from work at these sites have figured in several studies, detailed excavation reports on each have not been published.

Several syntheses of local prehistory, apart from general summaries of prehistory in contract reports, have focused on or included Vermilion River sites. The first of these focused on three basic adaptational strategies which converged along the river: the swamp, the prairie, and the marsh patterns (*Gibson 1975a*). This seminal study was primarily impressionistic, because data bearing on the prairie and marsh patterns were scarce. It was based on the *assumption* that culture areas and environments coincided and not on actual empirical demonstration. The second synthesis dealt with Tchefuncte settlement patterns and has been reviewed above (*Gibson 1974a*).

The latest synthesis was thematic, concerned with several issues and problems highlighted during the past two decades of intensive archeological investigations (*Gibson 1990a*). Based on an intensive survey of certain corridors selected to inquire into land use patterns, this synthesis was specifically concerned with Tchefuncte and Plaquemine settlement patterns, exotic lithics and foreign exchange relationships, early mounds, the fiber-tempered pottery horizon, and the location of the eighteenth century Attakapa village of Lamonier (*Gibson 1990a*); its location, however, was never identified.

### **Contract Archeology**

Since the mid-1970s, contract archeology has assumed an increasingly larger role in Vermilion River archeology. The most extensive cultural resources investigations in the general area were both surveys, one of the Vermilion River and the other of a proposed highway loop around the city. The first was a NOD-sponsored investigation of the Vermilion River banklines in 1975 (*Gibson 1976a*). The full length of the river, including its Bayou Fusilier arm, was inspected, and 35 sites were recorded, including 17 along the river within the city limits of Lafayette. All except four locations within the city were concentrated at the gap where the

Vermilion exits the lowland and enters the high terrace land to the west. Several of these 35 sites were known from previous explorations, but others were reported for the first time.

The same holds true for the Lafayette Loop survey, performed by Gulf South Research Institute (GSRI) (*GSRI 1976*). The GSRI work reported 16 previously recorded sites and 36 new locations, most of which really were new in a historical sense: they were places occupied in the nineteenth and twentieth centuries. The GSRI was the first contract work to systematically record historic sites in the area.

Most cultural resources investigations did not reveal any historic or archeological sites including the following surveys: a) Sewerage District 6, Lafayette southside (*Gibson 1975b*), b) East Pine Street extension (*Gibson 1976b, 1977*), c) Town of Scott municipal sewerage system (*Gibson 1978b*), d) Pinhook Bridge crossing over Vermilion River (*Rivet 1975a*), e) Kaliste Saloom Road extension south of and parallel to Vermilion River (*Neitzel 1979*), f) Northpark Industrial Center in open country off Gloria Switch Road on Lafayette's northside (*Gibson 1984*), g) proposed adult community center on Calco Boulevard at Vermilion River (*Gibson 1986a*), h) flood protection levee on Vermilion River between Surrey and Simcoe streets (*Gibson 1986b*), and i) site of National Wetlands Research Center between Congress Street and Eraste Landry Road near Coulee Mine on Lafayette's southside (*Gibson 1990b*).

Although these surveys produced no sites, they were valuable in the sense that they provided negative data on site locations. Because delimited parcels of land of specifiable extent were systematically and thoroughly searched, they showed where sites were *not* located, and in land tenure studies, knowing where sites were not located is as important as knowing where they were. Negative data reveal where people *did not* live or work, and by studying environmental conditions that existed at such spots, it is often possible to gain insight into the reasons why some places were used and some were not.

Other cultural resources surveys did succeed in finding sites: a) West Congress Street extension, open country across Lafayette southside—projectile points reportedly found in a field, but no additional artifacts recovered from location (*Gibson 1974b*); b) Lafayette Municipal Airport, on Coteau Ridge at Vermilion River gap through terrace—11 sites reported, but all but one had been previously discovered (*Gibson 1976c*); c) state highway 3171 from I-10 junction to junction U.S. 190, Lafayette to Opelousas, across Lafayette-Mississippi meander belt paralleling the Coteau Ridge scarp—three sites (16SL65-67) reported (*Rivet 1975b*); d) South College Road extension, from Pinhook Road to Kaliste Saloom Road, near south bank of Vermilion River in Lafayette's southside—three sites and two spot finds recorded and testing at 16LY58 produced no in situ remains (*Coastal Environments Inc. 1982*); e) proposed Vermilion River bridge crossings, Bertrand Drive, Rena Drive, and Camellia Boulevard—one historic site and one prehistoric potsherd found (*Whelan and Castille 1988*); and f) survey of I-49 connector highway corridor through Lafayette—one previously reported prehistoric site (16LY29) found to be destroyed, two historic archeological plantation sites (Ile Copal and Creighton) identified, both on the Vermilion River, and 364 half century or older standing structures recorded (*Gibson 1991a*). With the exception of Coastal Environments Inc.'s testing at 16LY58, these surveys have

mainly produced dots on maps and sometimes indications of the age of the sites. Consequently, small-scale survey data are normally more suitable for locational analyses. They are the complement of the negative surveys.

There has been one major attempt to analyze data, positive and negative, on site locations (*Gibson 1983*). Although the purpose for the analysis was practical—to provide the USDA Soil Conservation Service with criteria for deciding which project streams needed to be surveyed—the study developed a means of predicting (actually projecting) the probability of sites occurring on particular segments of streams and thus had theoretical and methodological value. Prediction was based on site density estimators, determined from site location-soil type associations and areal figures revealed by earlier surveys. By calculating the extent of each soil type traversed by a particular stream, the estimators were able to project the number of sites expected to occur along that stream segment. Three estimates were provided, the highest and lowest figures expressing the range of statistical error inherent in probabilistic assessment and the middle one, the most likely number of site occurrences (*Gibson 1983:Table 2*).

Highest site densities occurred on soil types associated with elevated landforms, terraces and natural levees: i.e., Memphis, Gallion, Dundee, Baldwin, and Iberia silt loams-silty clay loams, in that order (*Gibson 1983:Table 2*). Prehistoric peoples sought out the high spots in the swamp for their villages and camps. Although this may seem blatantly obvious, it is always nice to be able to confirm such assumptions empirically and to operationalize them so that they can be tested. The site location model for the Vermilion locality awaits testing. It also awaits refinement which will enable the model to not just project where sites will and will not be found, but to *predict* what kind of sites will be encountered. Together academic and contract research has made the Vermilion River and contiguous area one of the most intensively investigated localities in Louisiana.

## CHAPTER FOUR

### PREHISTORY OF THE UPPER VERMILION RIVER

The focus of this review is limited not by the small size of the project area but by the restricted extent of cultural interactions during the past 11 millennia. The geographic scope varies from period to period as interaction networks of Vermilion peoples expanded and contracted. It has long been standard practice in archeology to discuss the prehistory of a given natural or project area as if it constituted a culture area unto itself or to discuss the general course of prehistory on regional or even continental bases, as though the turn of events on these large scales were applicable to every spot within the area. Neither of these practices is useful and, in many cases, such practices are misleading. We may doubt that a uniform pattern of life ever existed throughout the Lower Mississippi Valley or any of its constituent natural areas at any given moment in the past. Archeological cultures are composites of many different patterns, expressed in terms of their *diagnostic* artifacts—pottery and projectile point types. We may doubt that culture change proceeded at a steady pace and affected all communities similarly. To assume so, in our opinion, is to misrepresent prehistory or to make it so general as to be of little value in characterizing local events and changes. This review of upper Vermilion River prehistory takes a decidedly empirical approach in order to reveal what we *know* about the locality, rather than what we can extrapolate about the locality from our general knowledge about the Lower Mississippi Valley.

#### Paleoindian Period

##### Clovis Culture

The only evidence of the first people on the Vermilion River is a Clovis point (16LY68)<sup>2</sup>, found by Ben Mayfield, a local resident, on the south side of the Vermilion River in Lafayette's southside (*Ben Mayfield, personal communication 1981*). Until this discovery, there was no

---

<sup>2</sup>Site numbers are provided for those properties for which site forms have been completed and submitted to the State. If no number is given, it can be assumed that the site has never been formally recorded with the State.

direct evidence that Clovis people occupied the locality, although their presence was always suspected. A Clovis point was found south of the project area at Cote Blanche (*Marckese 1993*), a salt dome in the coastal marsh. The distal end of a lanceolate point of unidentified type, possibly Clovis, was excavated in the upper 15cm level of a layer of loess capping organic clays at Jefferson Island, another salt dome lying about 25km south of Lafayette. In the same level were mastodon bone fragments, and at lower levels down to over a meter and a half in the same soil stratigraphic unit were other remains: more mastodon, as well as mammoth, horse, and tapir (*Daniel Cring, personal communication 1991*). In addition, an antler projectile point, cords, and matting were recovered from Avery Island, still another salt dome, in deposits radiocarbon dated to Clovis times, or actually a little before (*Gagliano 1970*). Clovis points were also widely but thinly distributed throughout the hills and terracelands of northern and central Louisiana (*Gagliano and Gregory 1965; Gibson 1988*).

A single point cannot tell us very much about the nature of Paleoindian culture along the Vermilion River, but several inferences may be drawn. First, the isolated occurrence suggests a hunting loss. Second, the point was of brown pebble chert, which suggests that the point was made locally. The nearest known gravel deposits are in the hills at Bayou Chicot, 80km north of Lafayette, or on the salt domes, some 25 to 90km south. By viewing these implications in geographically wider context, we may conclude that Clovis tenure in the Vermilion locality involved hunting, perhaps by small widely ranging bands.

Another inference is that the range of Vermilion hunters was more localized than neighboring Clovis bands to the north and west, who seem to have wandered as far as central Texas or southeast Missouri or traded with people who did. The Clovis points from Lafayette and the salt domes to the south are all made of local gravels, but nearly 80 percent of the Clovis points from northern and western sections of Louisiana are made of exotic rocks, primarily Edwards Plateau (central Texas) and Crescent Hills (St. Louis) cherts and even novaculite (Hot Springs) (*Gagliano and Gregory 1965*); these materials are thought to be a result of embedded procurement, gotten when the travels (seasonal rounds) of these nomadic hunters-gatherers brought them through the source areas of these rocks.

If the 11,960 B.P. age for the Trappey Mastodon is correct (*Gibson and Miller 1973*), then archeologists are unlikely to have much luck in reconstructing the Clovis cultural landscape in the vicinity, even on the high and low terraces along the river. That date comes from an old land surface within the high (Prairie) terrace, an old surface that was covered by more than four meters of Peorian loess. That now-buried paleosol was the land surface during Clovis times.

Under usual circumstances, the nature and progression of culture in one area has no necessary bearing or relevance to any other area. Relations must be documented, not assumed. The Paleoindian situation, however, does not represent the usual set of circumstances, and a broad area-to-area perspective does offer better understanding of the situation. Paleoindian culture in the Lower Mississippi Valley is, in our opinion, different from all later cultures because its nomadic groups ranged widely and there were few, if any, competing traditions in the nearly empty land. Thus, how we perceive Paleoindian occupation in northern and western



Louisiana has a direct bearing on how it is perceived on the salt domes and along the Vermilion River and nearby terrace lands. The local west Louisiana Paleoindian people were either a territorial band, who ranged widely across western and northern Louisiana, southern Arkansas, and eastern Texas during the course of a year, or different bands, whose seasonal rounds intersected at various places and times, thereby fostering social interaction, trade, and information exchange (*Gibson 1988*).

Along the Vermilion, Clovis land surfaces are buried by thick loess deposits, and consequently, except when remains are accidentally brought to light, Clovis (and probably Middle and Late Paleoindian) materials are simply not going to be found. But information we have in hand, especially from the nearby salt domes, dovetails quite nicely with a hypothetical reconstruction Gibson advanced earlier for Clovis land tenure in the Louisiana uplands west of the Lower Mississippi Valley (*Gibson 1988*). This model grew out of Gagliano and Gregory's (1965) distributional study of Paleoindian projectile points and raw materials. The main thesis was that Paleoindian peoples were small nomadic bands, which ranged over relatively large areas during the course of a year. Their wanderings carried them through many environments and brought them in contact with varied rock deposits and outcrops: the Edwards Plateau of central Texas, the Ozark Rim near St. Louis, and the Hot Springs area of central Arkansas, places that lay from 300 to 600km from places where Clovis points made of these particular exotic materials were lost. Points were presumably knapped at the rock outcrops. No partially finished Clovis points or chipping residues have been recognized in Louisiana.

Under the model, the occurrence of isolated, technologically finished points elsewhere in Louisiana (outside the Vermilion River locality) reflects hunting losses along migration routes or, alternatively, long-distance forays to specific resource areas. The northern and western parts of Louisiana were regarded as hunting territory for these mobile bands, because over three-quarters of the recorded Clovis points from the hill country of western and northern Louisiana were made of exotic flints (*Gagliano and Gregory 1965*).

Guy and Gunn (1983) identified a possible migration route running from the High Plains into southwestern Louisiana along the hilly interfluvium separating the Sabine and Mississippi drainages. Nomads could have followed this drainage divide and not have had to cross a single major river. Interestingly, the Sabine interfluvium is the common ground for Clovis points made from Central Texas, Arkansas, and Missouri flints. Was this narrow strip of hill country the meeting ground for migrating bands? Was it the place where various groups, groups that spent part or most of the year outside of Louisiana, converged during their yearly rounds to visit, to trade, to court and marry?

If this was common ground, it lay well west of the Vermilion River. The evidence from the Coteau Ridge-Vermilion River and the nearby salt domes indicates that Paleoindians in the Vermilion River locality had little direct contact with either the rock sources to the west and north or with the people who did. Only local lithic and organic resources appear to have been used here, and this suggests that the Vermilion locality was occupied year-round and was not merely visited seasonally by migratory hunters from Texas, Arkansas, or Missouri.

## Dalton Culture

Information on later Paleoindian occupation in the Vermilion River-Coteau locality is also quite limited. The Vatican site, located on Bayou Carencro about 10km northwest of Lafayette, is the most notable Late Paleoindian component in the vicinity. Saltwater overflows and discharges from the hazardous oil field waste stored there "burned" off the ground cover, exposing a dozen or more small discrete concentrations of artifacts, which included Dalton projectile points (as well as a few stemmed and notched forms) and over 500 microlithic tools, such as endscrapers, side scrapers, multiple scrapers, notches, perforators, burins, truncations, and denticulates (*Gibson 1970:19*). Thousands of flakes, chips, chunks, and other manufacturing residues littered the ground. A fossil horse tooth and another unidentified piece of fossil bone were the only faunal remains recovered, but no excavations were conducted, only controlled surface collections. The collections have not been fully classified and inventoried, but raw materials are of local origin. One of the Vatican projectile points was initially reported as a reworked Plainview (*Gibson 1970:19*), but that was before typologists recognized initial stage Daltons. That point would now be classified as a Dalton.

Artifact concentrations were 15 to 25m in diameter and were separated from one another by distances of between 15 to 50m. These concentrations extended over an area more than a thousand meters wide. If the concentrations were created by habitation rather than erosion or oil field construction, then several explanations for them come to mind: a) individual family shelter areas during a single camping episode, b) distinctive activity areas created during a single camping episode, or c) some combination of shelter and/or activity areas produced during one or more camping episodes. Detailed comparisons should show whether clusters duplicate each other or not; if they do, we would regard them as family leavings at a one-time camp; if they do not, then it would be more appropriate to think of them as activity areas or sequential camps or perhaps both.

Dalton components elsewhere in the United States appear to date between 10,500 and 9,900 years ago. Vatican assuredly dates to the same time. The Vatican site bears on the model of Louisiana Paleoindian occupation presented above in several ways. First, it is a real domestic area (or a series of areas or encampments) and not just an isolated find or two, as are all the reported Clovis points. No Clovis *assemblages* have been recognized or reported in Louisiana. The Vatican site has an extensive assemblage, with many kinds of tools, not just hunting equipment, and that indicates a variety of work took place, the kind of broad-based work one expects of a true social group, one made up of families—grownups, kids, and dogs. Our view of Clovis occupation is that of transient hunters; our view of Dalton is that of busy camping families and hunting parties, going and coming, using the same camp day after day, week after week, perhaps month after month. The preponderance of local lithic resources used at Vatican argues for year-round occupation, at least in the immediate vicinity, although not necessarily at any single site.

## Terminal Paleoindian Period

The Terminal Paleoindian period is also represented along the Vermilion River, but again evidence is limited. A Pelican point was found at the Beverly Picard site (16VM17) on the Vermilion River near Milton, 10km downstream from Lafayette (*Gibson 1976a:82, Table 25, Figure 10a*), and several San Patrice points were found at Meche-Wilkes Mound, on Coulee de Marks near its junction with Bayou Fusilier. A San Patrice Point was also possibly recovered from the Paul Breaux School at the river gap in the Coteau Ridge (the point in question was in the Pierre Martin collection, which was primarily obtained from that location, although it does contain points from other proveniences). All San Patrice points were made of local gravel chert.

The Terminal Paleoindian San Patrice culture has not been absolutely dated but probably directly succeeds Dalton and lasted for a few centuries at most. San Patrice culture is the most widespread early occupation in Louisiana, although that is not apparent strictly from the available evidence from the Lafayette vicinity. San Patrice points and sites are distributed across practically all older land surfaces west of the Mississippi Valley (*Gagliano and Gregory 1965*). The Lafayette area finds, in fact, have direct bearing on the age of some of the landforms, as well as on the rivers and other forces which built the land. This, in turn, has bearing on the paleoenvironments with which San Patrice people had to contend. The Pelican point from Milton was a surface find from the loess, which mantles a levee ridge of the old Lafayette-Mississippi meander belt of Prairie age. The points from Meche-Wilkes were also surface finds from another loess-covered terrace, lower than the Prairie Terrace. So, the presence of San Patrice and the probably contemporary (or slightly earlier) Pelican points in the top stratum of the Peoria loess puts a terminal date on the winter storms, which blew dust out of nearby sections of the denuded flood plain and onto the flanking valley rims. Thus, by San Patrice times, the big glacial melt and strong winter winds were largely over. The river flow stabilized (no more summer torrents and winter trickles), and flood plains became permanently re-vegetated. Although some of the Pleistocene species did not survive these changing conditions, the emerging Holocene Mississippi flood plain and flood plain edges would have offered unprecedented game and fish resources. The bluff-delimited upland-lowland margin and the flood plain proper invited exploitation and settlement like never before. San Patrice people moved into these niches in substantial numbers and in so doing set a precedent for river-side and river-wall orientation for the remainder of prehistory.

Unlike Clovis, San Patrice people undoubtedly lived year-round in the Vermilion area. We suspect population had increased to the point where many, perhaps even most, exceptionally productive spots were now occupied or utilized. This does not mean there were large populations or high densities, only that people were now spread across the land and were limiting their economic catchments to the better spots. Why there is not more evidence for San Patrice occupation in the Lafayette vicinity may be due to settlement factors or it may only be due to limited survey work up on the terrace. There is simply no way to tell which possibility is more likely at the moment, but even if the Vermilion gap happened to be a largely vacant zone, that might only mean that a more densely settled area lay just outside the surveyed plots. San Patrice population was certainly not evenly spread out, and even though it represents the first really

substantial residential occupation, we should not expect San Patrice sites to be as numerous as those of later cultures. Differences in the absolute numbers of people and the ravages of time ensure that.

## Archaic Period

The Archaic period spanned thousands of years. Along the Vermilion and actually throughout Louisiana, the Archaic period is the least known interval, and yet we suspect more artifacts are classified as Archaic than anything else. Part of that is due to its lengthy duration, but part is also due to population growth. We know little about Lower Mississippi Valley Archaic because of two prevailing factors in the development of Louisiana archeology. One, the professional interest in pottery, imparted because of its cultural historical sensitivity, preempted study of stone artifacts, and the Archaic period by definition lacked pottery. Thus, Archaic sites and materials were usually ignored.

Second, the emphasis on pottery focused attention on sites in the Mississippi River flood plain, where ceramic-making cultures were concentrated. Archaic sites are rare in the flood plain because a) they appear to represent only one aspect of an adaptive pattern, which was primarily upland oriented, and thus there may never have been great numbers of them, and b) most of the few sites that were in the lowlands were either buried or destroyed by river activity. On the other hand, collectors sought out projectile points, and, as a consequence, large collections of Archaic materials were available but, for various reasons (e.g., unrecorded provenience, selective retrieval, surface retrieval), such materials were not usually suited for cultural historical analysis. The Paul Breaux School site has already been mentioned in this regard.

Although the Archaic period is often chronologically subdivided in Lower Mississippi culture history, the bases for subdivision are usually unclear, decidedly arbitrary, or lacking empirical foundation. There is no established Archaic chronology for most of Louisiana; radiocarbon dates are nearly nonexistent, stratigraphic relationships have not been determined, and regional differences have gone unrecognized. This state of affairs is due to a lack of excavation.

One area that represents an exception to this situation is west central Louisiana where PTA has been conducting testing over the last four years. To date, 120 sites have been tested, resulting in an acquisition of data that have provided for assemblage trait analysis on not only Archaic collections, but earlier and later remains as well. This work has focused, however, exclusively on that region, specifically Fort Polk Military Reservation (e.g., *Thomas and Associates 1992; Campbell et al. 1994a, 1994b; Thomas et al. 1992a, 1992b, 1993a, 1993b, 1993c, 1993d, 1994a, 1994b; Morehead et al. 1995a, 1995b, 1995c*). Some interpretations on Archaic Stage culture history may eventually be applicable to the Lafayette area, but until such time as this has been demonstrated, no attempt is made to utilize the Fort Polk culture sequence.

There is no question, however, that the Vermilion River supported Archaic occupation. Located on the high (terrace) banks of the river in the city of Lafayette, Acadiana Park

(16LY14), Bone Pile Hill (16LY12), Paul Breaux School, and the Trappey Mastodon site are (or have) Archaic components (*Gibson 1976a; Gibson and Miller 1973*). Paul Breaux School may have been the largest component, judging from the thousands of projectile points of various Late Archaic styles (e.g., Williams, Marcos, Marshall, Ensor, Gary, Kent, Carrollton, and Macon) in the Pierre Martin collection, which was primarily obtained from the location in the early 1900s. Unfortunately, the collection contained points from other places and thus can not be used in a rigorous analytical fashion. The other sites were all small: Acadiana Park produced an Evans and a Macon point along with point fragments and a flake (*Gibson 1976a:Table 6*); the Trappey site produced two Marcos points (*Gibson and Miller 1973*); and the Bone Pile Hill site yielded a winged bannerstone of yellow chalcedony, a steatite sherd, a chipped adze, a flake, and a piece of blocky chipped debris (*Gibson 1976a:Table 18*).

Additional Archaic components occur upstream and downstream from Lafayette. Downstream some eight kilometers below the Vermilion River gap is a cluster of sites (16VM7, 16VM17 and 16VM23) near the mouths of Anslem Coulee and Coulee Ile des Cannes. One of these (16VM23) produced several projectile points (including Evans, Ensor, Benton, and others), point fragments, drills and drill fragments, chipped adzes and gouges and fragments, boatstone fragments, and tubular and barrel-shaped stone beads (*Gibson 1976a:Table 23, Figure 10*). However, only a handful of flakes was recovered, totally insufficient to complement the number of finished tools on the site. The assemblage is unusual enough to lead us to suspect that it might be functionally specialized, perhaps even ceremonial. Upstream where the river parallels the Coteau Ridge are other Archaic components, and on the low Prairie des Femmes terrace, where flanked by Coulee de Marks between Grand Coteau and Arnaudville, is the oldest Archaic component known in the Vermilion locality. The Coulee de Marks site (16SL48) produced Early Archaic point types, Keithville and Cache River, as well as point fragments and preforms, small flake end scrapers, and chipping residue (*Gibson 1990a:Table 24*).

There was substantial Archaic activity on or near the Vermilion River, and it seems to have spanned much of the long Archaic interval. But precisely when and what forms it took are unknown. We have only the most general perceptions of the interval, but they are sufficient to show that the locality continued to be a favorite spot for native groups. Having a long-standing sizeable population in a place with easy access to the interconnected waterways in the Lower Mississippi Valley was probably a prerequisite for entering into an era of commercial exchange, which characterized the ensuing period.

### Poverty Point Period

The Poverty Point period is set off from what otherwise would be classified as Late or Terminal Archaic because of certain artifact assemblages and other features, which are now coming to be recognized as being rather specialized and linked to long-distance trade. Poverty Point culture, in the sense of a general pattern of life spread throughout the Mississippi flood plain, never existed (*Gibson 1995*). Only a few sites in far northeastern Louisiana, the Yazoo Basin of western Mississippi, and a place or two elsewhere merit classification as Poverty Point

components, and these sites are the ones that invariably have considerable quantities of exotic lithic materials.

The Beau Rivage site, located on the bluff at the Vermilion gap, not only meets the taxonomic requirements but seems to have been rather directly involved in the circulation of lithic resources locally, as well as regionally (*Gibson 1990a, 1994b*).

The Poverty Point assemblage includes clay balls (i.e., cylindrical grooved, large biconical, small biconical, cross-grooved, amorphous, and several shapes uncommon outside the Vermilion area—plain and decorated subrectanguloid, plain pseudo-spheroidal, decorated pseudo-spheroidal, mulberry, trapezoidal, plain trianguloid, decorated trianguloid, hemi-spheroidal, finger-squeezed, and unidentified) as well as fragments (*Gibson 1976a:Table 20*). Other baked clay artifacts include a flattened slab with geometric incising, cane cores, and what appears to be small pieces of solid figurines of seated women. The additional clay objects, daub, hearth linings, and fragments of tubular pipes, do not assuredly belong with the Poverty Point component. Stone artifacts of the Poverty Point component include a ground galena nodule, the end of a galena plummet, ground celts, and sandstone and steatite vessel sherds (*Gibson 1976a:Table 20*). Other probable Poverty Point materials include the majority of the chipped debris and debitage; microliths; bifaces, projectile point preforms, and projectile points, as well as fragments of all these classes; drill preforms and drills and fragments of both classes; abrading stones; and miscellaneous odds and ends (*Gibson 1976a:Table 20*). Some of these materials could, however, belong to the relatively modest Tchefuncte component or possibly even later ones.

The larger projectile points from Beau Rivage include Gary, Wells, Evans, Sinner, Elam, Ellis, Delhi, Marshall, Palmillas, Mohriss, and others (*Gibson 1976a:Table 20*). These types are not really what a taxonomist would immediately recognize as being diagnostic of Poverty Point culture, as represented at the Poverty Point site, and, in fact, if they been found in a context lacking clay balls, they would probably have just been classified as Late Archaic. This is the crux of the Poverty Point taxonomic problem, not only at Beau Rivage, but everywhere Poverty Point cultural expressions are identified. Cultural classification is based on artifact types found at the Poverty Point site itself in northeastern Louisiana, and that site, among all contemporary manifestations, is the most unusual and the most distinctive. Many artifact types there are unique and are simply not encountered outside its immediate sphere of influence (the Poverty Point phase). So, the fact that Beau Rivage projectile point types, individually or as a group, are common to but not particularly diagnostic of Poverty Point culture, does not obviate or attenuate the Poverty Point taxonomic assignment. It just makes it harder to distinguish Poverty Point points from Archaic and Tchefuncte ones.

One of the unusual aspects of the Beau Rivage site was the wide variety of rocks and minerals used to make artifacts. Not only were stone artifacts relatively more numerous at Beau Rivage than at most sites in the vicinity, a sure sign of its Terminal Archaic-Poverty Point cultural heritage, but a large percentage was made of rock of foreign origin—that is, rock that was derived from sources outside of the Louisiana segment of the Lower Mississippi Valley.

Actually, none of the rocks at Beau Rivage came from the Vermilion River vicinity. There are no rocks there, at least none within hundreds of feet of the surface. So, even the materials considered to be local—chert gravels, ochre, limonite, and ferruginous sandstone (or ironstone)—were imported, and the nearest known source deposits are on Avery Island, 40km to the south, and in the pine uplands near Bayou Chicot, nearly 100km to the north. But truly exotic materials, such as Catahoula sandstone and quartzite, novaculite, northern gray flint, Crescent Hills chert, gray slate, galena, and steatite, which make up 36 percent of all the material (*Gibson 1979:108*), came from much further away—from the Kisatchie Wold of east-central Louisiana, the Ouachita Mountains of central Arkansas, the Ozark Rim of eastern Missouri, the Shawnee Hills of southern Illinois, and the Appalachian piedmont of western Georgia and northeastern Alabama (*Gibson 1994a*).

These materials were almost certainly supplied by long-distance exchange, and that appears to tie Beau Rivage directly into the widespread Poverty Point exchange network (*Ford and Webb 1956; Gibson 1994a*). The primary occupation at Beau Rivage was during the Poverty Point period, and because Beau Rivage had absolutely and proportionally more exotic material than other nearby sites, it figured to be the major player in the local and regional exchange systems (*Gibson 1979, 1990a, 1994a*). An initial analysis revealed that foreign materials represented among the debitage and debris (by-products from making bifacial tools) consisted almost wholly of interior and biface thinning flakes and small chips, the last round of flakes removed by a flint knapper during manufacture of projectile points (or other bifacial tools) or during refurbishing of broken tools (*Gibson 1979*). Beau Rivage received its rock supplies in the form of finished tools or prepared blanks and not in a raw state (*Gibson 1979*). This suggested that Beau Rivage was trading directly with a primary fabrication/prefabrication center, and that center was suspected to be the Poverty Point site, 280km to the north (*Gibson 1979:111-113*). All this was quite reasonable until lately, when new investigations at the Poverty Point site showed that it too was getting its vast supply of exotic materials (the same kinds of rocks as were at Beau Rivage and others) in the form of finished tools or prepared tool blanks (*Gibson 1994a*). Foreign materials were being knapped elsewhere, outside the homeland of Poverty Point culture *per se*, probably at or near the source outcrops or deposits in the upper reaches of the Mississippi or Tennessee rivers.

Despite its compact size, Beau Rivage had large quantities of exotic rocks—thousands of pieces and possibly hundreds of kilograms. Exotics make up over a third of all lithic materials in the available collection (*Gibson 1976a:Table 20*). There are at least nine other sites within a 25km radius of Beau Rivage that have exotic materials—materials other than novaculite and quartz crystals, which are not really exclusive Poverty Point commodities (*Gibson 1991b*). The Olivier site (16SL12), near the junction of Coulee de Marks and Bayou Fusilier, is the most notable of these other sites (*Gibson 1976a:38-39*). But none of these sites comes close to matching Beau Rivage in absolute quantities, although Olivier might come close in terms of relative quantities. The point to be made here is that Beau Rivage is not an isolated component. For 25km above and below Beau Rivage along the Coteau Ridge and flanking Vermilion swamp are other presumably coeval sites bearing foreign lithic materials. We suspect Beau Rivage was the local supplier.

But where did Beau Rivage get the rocks? In an earlier analysis, Gibson claimed that they came directly from the Poverty Point site, 280km to the north (*Gibson 1979*). Gibson thought they were first delivered to Poverty Point, where they were rendered into tool blanks before they were then shipped on to distant consumers, like Beau Rivage. Now, after more than a decade of recent excavation at Poverty Point have failed to find either the unaltered bulk materials or the primary chipping residue showing that preshaping actually took place at Poverty Point, we are not as certain. Initial shaping of tool blanks for trade now seems more likely to have been carried out at the rock outcrops or deposits themselves. Poverty Point still seems to be the most likely source of the blanks and nodules that got to Beau Rivage, but search for intervening distributors continues.

Still, the overall pattern of Poverty Point exchange points emphatically to a close, if not direct, connection among widely dispersed sites throughout the network. Recent studies of Poverty Point exchange in Poverty Point's immediate hinterland indicate that function and not prestige or absolute distance had a strong influence on the kinds of materials that particular sites received in trade (*Gibson 1994a*). Artifact size and how much tool repairing was done also seem to have been important determinants of how much of a particular kind of flint wound up at any given site (and how much remained there after the site was abandoned). It is hard to imagine these factors being important in the trade between Beau Rivage and Poverty Point, because stylistically the two sites have little in common. They are more dissimilar than similar, suggesting that familiar communication was lacking or infrequent. Perhaps some social factor, like personal prestige or ambition or, perhaps, some unique emotive condition fueled the trade between the sites.

One other factor does, however, loom large when viewing Beau Rivage's possible relationship with Poverty Point or Poverty Point's exchange network, and that is strategic location. Virtually every site and cluster of sites that can be classified as Poverty Point is located on the first high ground proximal to a primary waterway that was directly linked to the Mississippi River or the Poverty Point site itself. This relationship is not so apparent at first glance, because the location of the great river has changed many times since 1100 B.C., but refinements in the meander belt chronology and in establishing the relation of sites to various channels have shown that direct canoe travel among Poverty Point components throughout the Lower Mississippi Valley was possible. The quantity of material being circulated strongly implicates water transport. Hence, communities positioned at strategic points along the interconnected rivers were the ones that seem to have participated in exchange.

Strategic location, however, is not the sole explanation for why some Lower Valley groups joined the trade network, because other groups, which also seem to have enjoyed logistically favorable positions, did not. Other factors were at play in determining who would and would not join in the commerce. Looking at the entire Poverty Point exchange sphere from the vantage of Beau Rivage may hint at where to look for those factors. Beau Rivage and its hinterland seem to have been one of the most active parties in the exchange, yet Beau Rivage is 280km south of Poverty Point. Another active party was the Claiborne site (22HA501), 320km south of Poverty Point, located at what would have been in 1100 B.C. the junction of the



Mississippi and Pearl rivers. The Claiborne site seems to stand in virtual isolation, the only one of the major Poverty Point components without a hinterland. A third major party was the Jaketown site (22HU505) and hinterland in the Yazoo Basin of western Mississippi, 100km from Poverty Point. Finally, a fourth site was Deep Bayou (3LI25) in southwestern Arkansas, 160km northwest of Poverty Point. The hinterland enveloping the Poverty Point site itself stretches for just over 30km in all directions, except southwest. Thus, there appear to be considerable distances between the major communities involved in exchange.

If one imagines the exchange area as a series of concentric circles radiating up and down the Mississippi Valley from the Poverty Point site, then we find some of those circles contain clusters of sites with exchange materials, but most of them do not. The narrowest "empty" circle is between Poverty Point and the Jaketown site to the northeast and the Deep Bayou site to the northwest, a band some 70 to 130km wide where few trade materials are known. The widest "empty" circle is to the south, between Poverty Point and Claiborne to the southeast and Poverty Point and Beau Rivage to the southwest; it is more than 250km across. There are isolated sites with exchange materials within this "empty" zone, but the small amounts and kinds of materials both suggest very attenuated relationships with the Poverty Point exchange web or perhaps even a totally separate ad hoc trade with non-Poverty Point peoples out in the hills west of the Mississippi Valley.

These "empty" zones are interesting; they were not vacant. People lived there, and many places within the "empty" zones were well-suited strategically to tap into the exchange network (e.g., Lower Tensas Basin, Catahoula Lake, Marksville Prairie-Gum Ridge, and Petite Prairie). The emptiest "empty" zone, the one most completely lacking in foreign trade materials, actually appears to be the zone closest to the Poverty Point site, the one lying immediately beyond Poverty Point's primary, 30km-wide, service area. Then, further down valley, there is a zone with scattered trade materials but no apparent concentrations. And finally just above the coastline on the opposite corners of the Mississippi alluvial valley, we find sites with the largest amounts and widest range of foreign goods outside Poverty Point's immediate service area. What does this pattern mean? Why were some relatively nearby communities bypassed even though they were situated along the rivers, which were probably the main supply lines for active trading communities, far far away, at the distal ends of separate Mississippi River meander belts?

Although Poverty Point trade probably had a short life (*Gibson 1994a*), it is likely that the apparent absence of trade materials is not wholly due to the absence of sites in the "empty" zones during the peak of trade, ca. 1100 B.C. We have very few pertinent radiocarbon dates, but those we do have from sites in "empty" zones, such as the Catahoula Lake basin (*Gibson 1991b*), show that occupation was present during the height of Poverty Point trade. These occupations simply were not participating in trade to any appreciable extent.

Although there could be some access problem that we do not (or cannot) recognize today, the overall pattern and its nature suggests that social relationships may have been the overriding factor determining who traded with whom. The "empty" circle just outside Poverty Point's familiar service area evinces an ethnic (buffer zone) boundary. Sometimes, a community's closest

neighbors are its biggest rivals. If there had been economic competition or disputes over land-use rights between these neighboring populations, they could have easily affected interterritorial trade, even to the point of obviating it. Beyond this first "empty" zone, evidence suggests trade relationships were more of the negotiable sort, uncomplicated by an interwoven history of conflicting relationships or active ethnic prejudices—new peoples establishing trade ties for the first time, concerned more about fair returns or about getting the most for the least (balanced or negative reciprocity), rather than personal enmities. Whatever the case, Beau Rivage became a trade partner in the Poverty Point network, and the long distance from the Poverty Point site seems to have had little effect on the conduct of exchange.

Beau Rivage was the primary recipient of trade materials reaching the Vermilion area, and it is viewed as the primary dispensary for its 50km wide hinterland (*Gibson 1979, 1990a*). If this was truly the case, then we must also recognize the managerial role Beau Rivage played in local commerce—a role which adds a layer of administration above that of normal domestic situations. Typically, this conveys prestige and sometimes even power to management personages, and without doubt the principal Beau Rivage traders were also village leaders, gaining admiration, if not outright profit, from the transactions.

The context of exchange at Beau Rivage (and throughout the Poverty Point network for that matter) sheds further light on the nature of what actually was the most productive prehistoric exchange system to operate in the lowermost Mississippi Valley in terms of volume of circulated materials. The exotic rocks and minerals were used to make all kinds of artifacts, but predominantly they were used for the commonplace tools of the house and hunt. They were not used primarily for ornaments or ritual objects, as was the case with Marksville exchange centuries later. Thus, the exotic materials were not restricted to one segment of the population or to the ritual-ceremonial dimension of culture.

Despite what appears to be an obvious contradiction with the goals of the Marksville exchange (which does appear to be so restricted), we think the nature of the two systems was indeed quite similar. Even though the relative quantities of Poverty Point exchange materials are far greater than those of Marksville and even though Poverty Point trade was primarily in partially dressed materials and Marksville, in ceremonial objects, the crux of the matter is that neither system delivered enough material to consumers to have ever had a significant economic impact. The Poverty Point site itself may be the only exception. People everywhere still depended on locally acquired materials for tool stock. For the Beau Rivage area, we could be looking at total receipt of as little as five to 50kg of materials, certainly too little material to have made any real difference in equipment manufacture and replacement.

Yet, exotics are present, not at one, but at nearly a dozen known sites in the Vermilion area. We suspect that these exotic materials are, like the Marksville ritual and status objects, indicative of display and denotation, of public demonstration of leadership and validation of intergroup policy and politics (*Gibson 1990a:108*). Perhaps, the groups linked by such demonstrations formed mutual aid consortia, perhaps not, but one undeniable aspect of these

relationships was the assertion and validation of the leadership through peaceful diplomacy. And in this are the makings of great leaders, powerful leaders.

We attribute the difference between the utilitarian focus of Poverty Point exchange and the ritual focus of Marksville interaction to the general lack of widespread cultic institutions in Poverty Point societies. Some places, the Poverty Point site especially, undoubtedly had an important and formal ritual organization, which probably included full-time shamans and other holy men. But, by in large, Poverty Point religion seems basically individualized and animistic, rather than sectarian (*Gibson 1989, 1994c*). Marksville religion, on the other hand, seems more formalized and cultic in nature. Lacking cults, Poverty Point societies absorbed exotics throughout their entire fabric. Having cults, Marksville societies restricted exotics to them. Leadership through action as opposed to leadership by social definition aptly describes the differences between Poverty Point and Marksville societies, but the overall effect of exchange seems to have been the validation of leadership in both cases.

A final point remains. Does this mean that Poverty Point societies were less complex than Marksville societies? We suspect so. Does this mean that earlier claims of Poverty Point complexity were wrong (*Gibson 1974a*)? No, not necessarily. For reasons given earlier, we no longer think of Poverty Point as a chiefdom, but that does not take anything away from the organizational complexity apparent at the Poverty Point site. No one Marksville site can compare to Poverty Point. Secular leadership is no less, no more, important for social cohesion than is religion-based leadership, especially if secular and sacred dimensions are merged, as was likely the case for Poverty Point (*Gibson 1989*). The layer-upon-layer of administration and management, which seems to permeate the Poverty Point site, has no counterpart among Marksville sites. At least three managerial layers can be envisioned for the Poverty Point site—village administration, locality (community, or phase) rock provision and ritual support, and long distance interregional trade. No Marksville site seems to have had more than two layers—village business and long distance trade. The real question is not which time period had the most complex culture, but which time period had the most complex site. The answer is Poverty Point.

The vision of the Poverty Point site as a relatively complex community remains, but the concept of Poverty Point's exchange partners as small-scale but similarly complex communities has, however, changed. Beau Rivage was not the center of a small culturally complex community; it was merely the economic focus of a local community which participated in a far-reaching exchange network and reified the prowess of its leadership in the process.

### **Tchefuncte Period**

We do not know why the Poverty Point exchange network collapsed, but it did. The impact of these failed connections on Vermilion populations was negligible from an overall resource-material viewpoint. It apparently did not even make much difference in validating leadership, if indeed that had been a by-product or reason for exchange in older communities.

What transpired in the Vermilion locality was actually a busy lifeway with a vigorous ceremonial component: Tchefuncte culture.

The Vermilion River harbored its largest population aggregate during the Tchefuncte period, an estimated 900 year-long span (ca. 1000-100 B.C.). Although there are no radiocarbon dates, the extended span advocated here is supported by ceramic data, especially for the early end (Ruth Canal and Meche-Wilkes).

A total of 31 Tchefuncte components has been identified within 40km of the Vermilion gap. Thirteen of these are concentrated along an eight kilometer stretch of the Vermilion River, upstream from the gap (*Gibson 1974a, 1976a, 1990a*); the best known of these components are briefly inventoried below. Other components are located on Vermilion tributaries or tributaries of those tributaries, as well as on old crevasse streams, which originated along the Teche-Mississippi meander belt ridge. Of all sites of recognizable cultural affiliation on the Vermilion River and adjoining countryside, Tchefuncte sites are most numerous.

### **Lafayette Mounds**

Neitzel and Doran excavated one of the three low conical mounds in 1941, recovering at least 30 flexed, bundled, and indeterminate inhumations at the base of the structure (*Ford and Quimby 1945:21-24,26-27*). No grave goods were associated with the burials, but artifacts were scattered throughout the two-layered fill which comprised the low domed structure, as well as in the midden around and beneath the mound. These consisted primarily of Tchefuncte pottery (i.e., Tchefuncte and Mandeville Plain, Tchefuncte Stamped, Tchefuncte Incised, Tchefuncte Red Filmed, Lake Borgne Incised, Alexander Incised, and Orleans Punctated), a few projectile points (primarily Pontchartrains, Garys, and crude Macons), tubular pipe fragments, a fragment of a biconical baked clay object, ground celt fragments, bar weights, quartz crystals, abraded stones, a stone bead, and a perforated bird talon (*Ford and Quimby 1945:23*). These materials belonged to the Tchefuncte component, but three sherds bearing Early Marksville designs and a group of 268 potsherds identified as Plaquemine types led some archeologists to question whether the mound was constructed during the Tchefuncte period (*cf. Gibson and Shenkel 1988:13*). Although Ford and Quimby (1945) do not provide distributional information on pottery from the various components, the materials are so overwhelmingly Tchefuncte that there is no question in our mind that the mound is anything other than a Tchefuncte construction.

### **Ruth Canal**

Ruth Canal (16SM20) produced an assemblage indicative of the Late Poverty Point-Early Tchefuncte period. We do not believe it has separable Poverty Point and Tchefuncte components. Although no excavations have been done, both fiber-tempered and untempered pottery appear to be eroding out of a thin anthropic A horizon, buried by less than a half meter of recent alluvium.

Quotation marks are used for the pottery types, because they are "too early" to be called Tchefuncte. Though they are essentially indistinguishable from later Tchefuncte types, it would

insult typology if they were not distinguished in some manner. It would also be an insult to call *any* fiber-tempered material by Tchefuncte names, even though we cannot sort the decorations from typical Tchefuncte pottery. So, quotation marks are used around those types too. But decorations on Ruth Canal fiber-tempered pottery do not look like fiber-tempered decorations elsewhere in the South. They look like standard Tchefuncte decorations. Historical typology fails us here.

Untempered pottery from Ruth Canal includes (in order of frequency) "Tchefuncte Plain"; "Jaketown Simple Stamped"; "Tammany Punctated *var. Tammany*," "*var. Tchula*," "*var. LaSalle*," and "*var. Ruth Canal*"; "Tchefuncte Incised *var. Tchefuncte*"; "Lake Borgne Incised *var. Lake Borgne* and *Cross Bayou*"; and *unidentified* (Gibson 1976a: Table 8). Fiber-tempered pottery includes (in order of frequency): plain; "Tammany Punctated *var. Tammany*," and "Tammany Punctated *var. LaSalle*," "Lake Borgne Incised *var. Cross Bayou*," and "Jaketown Simple Stamped" (Gibson 1976a: Table 8).

Poverty Point objects (biconical plain, biconical grooved, biconical extruded, biconical flattened, biconical miniature, and amorphous) were also recovered, along with fragments of objects and other pieces of baked clay (Gibson 1976a: Table 8). Lithics include debris and debitage, projectile points and fragments (Macon and others), a pencil-shaped drill, a grooved plummet of hematite, an unworked quartz crystal, and a lump of Catahoula sandstone (Gibson 1976a: Table 8). Exotic raw materials represented are quartz crystal, hematite, and sandstone, and among the chipped stone artifacts, novaculite and northern gray flint. Exotics, in fact, make up nearly a quarter of the admittedly small inventory of stone artifacts. A burned bear tooth was also recovered (Gibson 1976a: Table 8).

The fiber content of Ruth Canal fiber-tempered pottery is substantial, but unlike fiber-tempered pottery from other regions of the Gulf Coast, fiber vesicles are largely confined to the cores of sherds and rarely show on the surfaces, probably because surfaces were floated, forming a smooth clay skin that obscured them. We do not consider using Tchefuncte type-variety names typology a breach of typological principles, although it does not follow the rules (Phillips 1970). Tchefuncte decorations were put on both untempered and fiber-tempered fabrics.

To have used Wheeler series types for the fiber-tempered material would have meant, in a pure sense, accepting the premise of contact or stimulus diffusion from the Alabama area, where Wheeler types are more abundant, and we should not assume what really needs to be proven. Besides, the decorations on Ruth Canal fiber-tempered ware and Alabama ware do not look alike. But the main complication is classifying pottery from the (late) Poverty Point period by names that belong to pottery from an ensuing period. Normal typological practice requires that we establish new types and varieties for the earlier material, *even though earlier and later decorations and fabrics are inseparable*. But we do not think this is the best way to handle the problem, because it methodologically obscures the empirical record and, we suspect, the historical record too.

What if the ceramic fabric was all technologically untempered? What if the plant fibers incorporated in the fabric were merely natural inclusions in the potters' clay? We strongly suspect that is the case at Ruth Canal and at other local sites with fiber-tempered pottery.

But if that were so, why does fiber-tempered pottery appear to be confined to a very narrow time span in the Lower Mississippi Valley, a span that corresponds everywhere to the first stage of pottery-making in a given locality? We suggest that rather than implying ties to the Wheeler country of Alabama or other areas of the Gulf Coast, the presence of fiber merely reflects the rudimentary technology of the earliest potters. They just used the mud underfoot without cleaning it or adding anything to it to make it less fragile. If potter's mud happened to have rootlets or other plant material in it, then vessels would have come out "fiber-tempered." We suspect that potter's mud taken from surface horizons of silty clay or silty clay loam soils, such as the Iberia silty clay underfoot at Ruth Canal, would have produced fiber-tempered vessels, while clay from the subsoil (argillic) horizon, even from the same mud hole, would have produced untempered "Tchefuncte" vessels. Therefore, the different fabrics would not imply any stylistic, technological, or cultural historical differences; they would only indicate where the potter's mud came from (near-surface or deeper).

Doyle Gertjeansen in his experiments in replicating Tchefuncte pottery found that Tchefuncte potters did little or no advance preparation of the clay before coiling their vessels (Gertjeansen *et al.* 1983). If they had done *anything* to treat the clay beforehand, then their pottery might not have turned out so badly in terms of strength and durability. After their initial efforts at pottery manufacture during which whatever soil happened to be handy was used, including that fraction with roots and humus in it, early potters began to use cleaner clays (from argillic horizons), and a more typical Tchefuncte foliated fabric became widespread. Given this explanation, using standard Tchefuncte categories for both Ruth Canal fabrics is not only justifiable, it is essential if we want to rid our typology of unwarranted time and geographic area distinctions and implied long-distance cultural connections.

### Bayou Tortue

The westernmost (downstream) section of the Bayou Tortue site was not covered by later midden deposits. Four, three by three meter test units were excavated by Gibson in 1969-1970. They encountered a rather pure Late Tchefuncte accumulation, with a minor Plaquemine veneer. Ceramics included the following (frequencies in parentheses): Tchefuncte Plain (1226); Tchefuncte Stamped var. *Russell Landing* (38), *Bayou Tortue* (32), and *Vermilion* (13); Tchefuncte Incised var. *Tchefuncte* (28) and *Pontchartrain* (3); Lake Borgne Incised var. *Lake Borgne* (13); Tammany Punctated var. *Tammany* (7), *Tchula* (4), *LaSalle* (5), *Ruth Canal* (1), and *Brittany* (1); Orleans Punctated var. *Boothe* (2), *Orleans* (4), *Magenta* (1), *St. Clair* (1), and *unspecified* (1); Jaketown Simple Stamped var. *Jaketown* (2); unidentified Tchefuncte decorated (3); Marksville Stamped var. *Marksville* (28); Mabin Stamped var. *Crooks* (6); Marksville Incised var. *Marksville* (21); Marksville cross-hatched rim (4); and Marksville zoned punctated (2) (Gibson 1976a:Table 15).

A few later types were found in the upper levels of these units: Pontchartrain Check Stamped var. *Pontchartrain* (4), Plaquemine Brushed var. *Plaquemine* (5), Mazique Incised var. *Manchac* (1), Coles Creek Incised var. *Hardy* (2), Harrison Bayou Incised var. *Harrison Bayou* (1), L'eau Noire Incised var. *Australia* (1), and Maddox Engraved var. *Baptiste* (1) (Gibson 1976a:Table 15).

Stone artifacts were relatively more abundant in this part of the site and included chipped debris and debitage, Gary dart points and point fragments, and an expanded base drill. Raw materials included local gravel but also sandstone, limonite, and two biface thinning flakes of novaculite (Gibson 1976a:Table 15). Fish, turtle, and deer were recognized among the animal bones recovered.

### Coulee Crow

Artifacts recovered included potsherds, chert debitage and debris, projectile points (primarily Macon and Epps types), baked clay fragments, tubular pipe fragments, a clay bead, and a quartz crystal (Gibson 1976a:53, Table 11). The excavated materials have not been fully analyzed, but an inventory of the surface collection includes the following pottery types, all Tchefuncte wares: Tchefuncte Plain, Tchefuncte Stamped var. *Vermilion*, Tchefuncte Incised var. *Tchefuncte* and *Pontchartrain*, and Lake Borgne Incised var. *Lake Borgne* (Gibson 1976a:Table 11). Interestingly, somebody, probably a child, bit into one piece of clay before it was baked.

The surface pottery represents a narrow range of Tchefuncte type-varieties, and impressions of the excavated sample are that it is similarly limited. This, coupled with the low percentage of decorated ceramics (2.3 percent in the surface collection), makes the Coulee Crow assemblage quite unusual among Vermilion Tchefuncte components. Only the Lafayette Mounds site, located about three kilometers upstream, seems to have a comparably small percentage of decorated pottery (2.7 percent) (Ford and Quimby 1945:23). Vermilion components are generally characterized by significant percentages of decorated pottery, often amounting to over half the pottery. Because the most obvious common denominator of Coulee Crow and the Lafayette Mounds is the presence of mounds, indicating burial and other ritual, one wonders if perhaps Tchefuncte pottery along the Vermilion River may have been segregated into secular and sacred assemblages, with decorated assemblages being primarily secular (domestic) and the plain ones sacred (ceremonial) in nature. Even if the assemblages were not functionally distinctive, the curious distribution of plain versus decorated assemblages demands further investigation.

### Beau Rivage

The main component at Beau Rivage dates to the Poverty Point period, but there is also a Tchefuncte component. Surface collections include Tchefuncte Stamped var. *Vermilion* and *Russell Landing*; Tammany Punctated var. *Tammany*, *Tchula*, and *LaSalle*; Lake Borgne Incised var. *Lake Borgne*; Orleans Punctated var. *Orleans*; Tchefuncte Incised var. *Tchefuncte*; and Marksville Incised var. *Marksville* (Gibson 1976a:Table 20). A barweight, scaled pieces, small

bifacial scrapers, and perhaps bifacial drills, tubular pipes, and some projectile points (listed previously as part of the Poverty Point assemblage) might also belong to this component.

### **Society and Ceremonialism**

The concentration of Tchefuncte sites along the Vermilion really seems to be a fact of settlement. The river was a preferred location. Unlike preceding Poverty Point period communities, which preferred the nearby valley wall (Coteau Ridge), bordering the river and swamps, Tchefuncte groups settled down in the flood plain en masse. Earlier locational analysis found that Tchefuncte people utilized a variety of flood plain landforms and settings, but they all had one thing in common—sites were positioned along ecological seams where several environmental zones converged (*Gibson 1974a*). Such positions would have made several seasonally distinctive food territories accessible from a single location and provided an adaptational alternative to having to shift village locations during the course of a year.

This was not the first time or the first place where peoples lived on the floor of the active Mississippi flood plain. It may not even have been the first time this happened in the Lafayette vicinity. Exploitation of swamplands had probably been a fact of life since Clovis times. Perhaps, pre-Tchefuncte peoples had already ventured down into the swamps only to have their home sites buried by subsequent alluviation. Perhaps. But there are solid reasons to believe that wetland adaptation, full-time living and working in the swamps (and to the south, in the marshes), was one of the major changes that led to the emergence of Tchefuncte culture.

The occurrence of pottery and wetland orientation seem to go hand-in-hand in the Vermilion country. We are including the earliest ceramics known from the vicinity—the fiber-tempered and untempered material from Ruth Canal, Meche-Wilkes, and other spots—in the Tchefuncte period, simply for sake of discussion. As previously indicated, they do bear "Tchefuncte," or Tchefuncte-like designs, despite being associated with Poverty Point objects, exotic raw materials, and other traits considered diagnostic of Poverty Point culture. These assemblages with the earliest "Tchefuncte" pottery date to ca. 1000 B.C. or a little earlier, thus the association. Ultimately, how to culturally classify these assemblages will have to be decided, but, for the moment, names are not important. Pottery as a technological invention is.

Pottery is a container, a container suited for holding lots of things but particularly liquids. Tchefuncte pottery was not very good technically—it was not very durable—but it was made from the most abundant resource in the Lower Mississippi Valley: mud. Consequently when a pot was broken or began to leak or fell apart on the shelf as it rehydrated from the humidity, it was a simple matter to replace it. The advent of pottery suggests the advent of new cooking methods and probably new foods, or, at least, new emphases on certain of the old foods. With clay pots, liquid dishes could now be cooked directly over the fire: court boullions, gumbos, stews, gruels, soups, mushes—watery concoctions of all kinds. Boiling, steaming, pot-roasting, and other food preparation methods were possible.



Pottery changed the eating habits of Vermilion natives, as well as people everywhere in the Lower Mississippi Valley. Necessity is the mother of invention goes the old saying, and if that happens to be true with pottery, then we would anticipate the increasing exploitation of the swamp and the growing use of aquatic foods to have begun before someone thought of using pottery. Fish, clams, turtles, and various vegetal tubers and greens are especially suitable for soupy dishes. Stone vessels were tried, but apparently not much before clay vessels. In fact, the appearance of stone and clay pots is practically simultaneous. That is understandable if the need for over-the-fire cooking utensils was a consequence of intensified exploitation of the swamp. It is also understandable why stone vessels were so quickly abandoned after ceramic ones began to be made.

The stone pots were carved from steatite, a soft dense stone from western Georgia and eastern Alabama, which had to be shipped hundreds, perhaps thousands, of kilometers in order to reach the Vermilion River. That material was certainly not a steady or cost-effective way of meeting a community's container requirements. Although steatite was one of the major commodities of Poverty Point exchange and probably a source of prestige for the importers, we do not believe supply could have ever kept up with demand once everyone had to have their own cooking pots.

Archeologists often envision Tchefuncte as a giant step backward for mankind after the seemingly climatic Poverty Point culture. That is a misconception, engendered partly by the impressive Poverty Point site and the extensive exchange sphere which seems to be centered there. Poverty Point cultural patterns were highlighted by trade—the process, the social institution, and the material cultural trappings. Tchefuncte patterns are undistinguished by exchange and its highly visible consequences. This is not to say that Tchefuncte peoples were not traders; they were, or at least some of them were. But empirical evidence of Tchefuncte exchange in the Vermilion vicinity, as well as elsewhere in the Lower Mississippi Valley, pales by comparison with Poverty Point commerce. Only two major materials, novaculite and quartz crystals, enjoyed wide circulation (*Gibson 1994a*). But these particular exotics were traded over a long span, from Archaic to Marksville times, and possibly even later. Their appearance at a given site or locality strongly suggests ad hoc and informal exchange contexts, quite unlike the institutionalized operations of Poverty Point trade partners.

A little trade was still being conducted by a few Tchefuncte groups, but its part in the overall structure of Tchefuncte societies seems to have been rather small and generally unimportant in charting the direction of cultural growth. However, the differences between Tchefuncte and Poverty Point exchange, which convey the impression that Poverty Point culture was more sophisticated than Tchefuncte culture, do not say very much about the grass-roots structure and organization of social groups of both time periods. As we argue above, foreign exchange does seem to have made the Poverty Point site a complex place, but we do not think any other Poverty Point or Tchefuncte components would qualify as complex places. Thus, without the Poverty Point site, we see very little to distinguish Poverty Point and Tchefuncte groups in terms of degree of complexity.

Tchefuncte seems to have integrated two practices—burial and mound building—which may represent the emergence of a new religion (or increasing formalization of the old time religion) and the appearance of a new kind of leadership. If this was the case, then the intertwining of rites and rights may have planted the seeds of social inequality, as manager and managed became separated by ever increasing social and political distances. Such distinctive societies coalesced here and there, and the Vermilion area was one of these places. Mound sites, particularly those with several mounds, are unusually common along the Vermilion River, and whatever this means, it makes the Vermilion different from Tchefuncte settlement elsewhere in the Lower Mississippi Valley.

The roots of mound building reach deep into antiquity, perhaps as far back as 4500 to 6200 years ago in the Lower Mississippi Valley (*Gibson 1994c; Saunders and Allen 1994*). But the very earliest mounds, those erected during Archaic and Poverty Point periods, seem to have been empty, or at least their contents were not of the material kind. But Tchefuncte folks started putting their dead people in mounds, and thus established a precedent which, despite ups and downs, would become one of the most widespread customs in aboriginal southeastern North America and would persist until recorded history. In fact, mound burial was apparently still being practiced by the Chitimacha Indians on Grand Lake, some 80km south of the Vermilion gap as late as the mid-1800s (*Faye Stouff, personal communication 1976*). Tchefuncte mounds did not contain grave goods (*Ford and Quimby 1945*). Artifacts were incorporated in the mounds but they were incidental inclusions in the fill dirt. The first sign of grave accompaniments, whether they represent personal belongings, ceremonial gifts, or graveside feasting left-overs, does occur in Late Tchefuncte contexts, but those contexts were middens, not mounds.

Later mound builders would incorporate all three things—mounds, burials, and grave goods—into a single mortuary program. Archeologists acknowledge this by creating a new Marksville cultural unit to accommodate these burial mounds, even though the mounds invariably contained some ceramics bearing Tchefuncte designs and made in the Tchefuncte way. Some years ago, Gibson suggested that this complex may not have represented a full cultural expression, or a Marksville culture per se, but rather autonomous groups representing various local traditions, who had adopted somewhat similar funerary practices and/or similar mortuary paraphernalia, which included some exotic raw materials, like copper and galena (*Gibson 1982:82*). This suggestion was not very palatable to traditional culture historians, and Gibson subsequently dropped it. That has not, however, changed the facts, and the facts are that Early Marksville pottery designs were part of Late Tchefuncte assemblages, and so was honoring the deceased with material offerings. What Marksville did that was different from traditional Tchefuncte was to put it all together in one package (cultural complex) and then bury it in a mound.

Death and burial have no doubt always been ritually celebrated, but in Lower Mississippi prehistory, such celebrations do not appear to have involved mounds until Tchefuncte times. Once again, the Poverty Point site may be an exception. However, the point of this line of reasoning is this: Poverty Point ritual may have centered on intergroup and intragroup trade meetings, but Tchefuncte ritual seemingly focused on death and burial. Both situations required

orchestration and competent leaders. Just as the layering effect of managing exchange raised some individuals and possibly lineages to levels of prominence in Poverty Point society, so did the supervision and direction of Tchefuncte burial practices. Real positions of leadership may have arisen, not just capable individuals rising to the occasion.

The Vermilion area harbors the largest concentration of Tchefuncte mounds known in the Lower Mississippi Valley. Nine mound sites are known within 40km of Lafayette (*Gibson 1974a, 1976a, 1990a*), and we suspect that several others are probably Tchefuncte. Some mounds are solitary structures, but others occur in groups of three to five. The multiple mound groups and associated middens are of particular interest here because they imply domestic and ritual situations more involved than simple family grave plots.

Lafayette Mounds, Coulee Crow, and Indian Mound Road sites all had three or more mounds. They are on the Vermilion River banks within nine kilometers of each other. In between these sites were other sites with single mounds, Fournet Mound and Runway Mound (16LY10). Precise chronology has not been worked out, but we suspect that the three large sites are sequential with only short or no overlapping spans. Simple proximity argues that these were places utilized by a single community or at least by friendly neighboring villages or by groups descended from common ancestors or friends. The history of these places is undoubtedly interwoven. This is one reason why we suspect that the small fraction of decorated pottery at large mound sites and the larger fraction at village sites might be due to functional and not time differences.

Why plainware was more common at mound sites is difficult to say, but it seems to be a marker of differences between purely domestic situations and those which had both domestic and mortuary activity—perhaps a marker of that extra layer of management above normal routine, the layer which spawned and nourished ritual leaders. This could be interpreted as a relatively sophisticated socio-political condition, but another explanation is more likely. Sites with several mounds may have simply been occupied longer or had larger service communities than sites with only one mound or none at all. What looks like a site hierarchy—multiple mound sites, single mound sites, and villages—probably is not. Vermilion Tchefuncte groups were different from their contemporaries elsewhere in the Lower Mississippi Valley. The absolute number of people and the social conditions arising therefrom are probably the reasons why.

### **Interregnum**

For centuries, the Vermilion River had been a relatively busy place, the home for generation after generation of natives. Then, people seem to have left or perhaps succumbed to a more drastic fate. However, before searching for an explanation for depopulation, it should be pointed out that archeological conceptualization sometimes makes it appear as if some catastrophe, grave historical event, or sweeping cultural reorientation took place. Such events may only be epistemological visions. Sometimes what and how we think makes us see things that are not there, that never happened. It is likely that we do not recognize what transpired next on the Vermilion, because we expect to find Early Marksville sites, and they are just not there.

We are not aware of any Early Marksville materials, other than a few diagnostic potsherds found intermingled with Tchefuncte materials in the upper levels of the Tchefuncte midden zone (see Previous Investigations section) and in the lower levels of the thick black midden, which covers sections of the Bayou Tortue site. Lower midden levels produced the following (frequencies given in parentheses): Marksville Incised *var. Marksville*, Mabin Stamped *var. Mabin* and *Crooks* (2), and Marksville rims (3). Tchefuncte Stamped (1), Orleans Punctated (2), and Lake Borgne Incised (2) types occurred in the same levels (*Gibson 1976a:Table 14*).

A few sherds, even if they do happen to represent an independent Early Marksville component and not simply a Late Tchefuncte one, do not make for a substantial occupation, certainly not one that comes anywhere close to the demographic conditions which were present on the Vermilion during Tchefuncte times.

If we accept the logic that material cultural quantity and variety correlates directly with population numbers and residential longevity, then what seems to be a fleeting Marksville presence on the Vermilion (as well as throughout the Lower Mississippi Valley as a whole) may be a consequence of the short time that diagnostic Early Marksville artifacts and the relatively elaborate mound mortuary programs were in vogue. If the Early Marksville expression only lasted a few years or a few decades, then we would not expect to find as many Early Marksville sites as Tchefuncte sites; Tchefuncte lasted a thousand years.

Even though we have trouble seeing the past clearly through our taxonomically colored glasses, there is little doubt that land-tenure patterns along the Vermilion changed drastically after Tchefuncte times. Not only is (Early) Marksville occupation practically nonexistent, but occupation in general was severely curtailed, evidently for more than a millennium. Data are available for only three post-Tchefuncte/pre-Plaquemine sites on the Vermilion River within 25km of Lafayette: Bayou Tortue, Beau Rivage, and Hotard Airport West (16LY28) (*Gibson 1976a*). Actually, these sites may all be parts of a single settlement, since the two large sites, Beau Rivage and Bayou Tortue, are directly across from each other on opposite banks of the Vermilion and the small Hotard Airport West site sits up on the terrace edge overlooking the Bayou Tortue site.

Bayou Tortue is the largest of these site areas or sites. It also has the longest occupational span. Several post-Tchefuncte components are represented among the ceramics. Ceramics have been reclassified by John Belmont and Gibson, and the following inventory, which makes use of Belmont's latest type-varieties, replaces Gibson's earlier listing (i.e., *Gibson 1976a:Tables 14-15*), which used Phillips's (1970) varieties. Frequencies are given in parentheses.

There is an Issaquena component, represented by Marksville Stamped *var. Manny* (3) and *Newsome* (1), Marksville Incised *var. Yokena* (3), and Braxton Punctated *var. Braxton* (1). It is followed by an Early Troyville component, represented by Alligator Incised *var. Atkins* (3); Braxton Punctated *var. Daves Bayou* (3); Churupa Punctated *var. Thornton* (1); Landon Red on Buff *var. Landon* (3); Larto Red *var. Larto* (4); Marksville Incised *var. Anglin* (4), *Dunbar* (2),

*Liddieville* (1), *Scott* (1), and *Vick* (8); *Marksville Stamped var. Cummins* (4); and *DePrado Rim* (4). Then, there is a Late Troyville component which has *Alligator Incised var. Oxbow* (1), *Chevalier Stamped var. McKinney* (1), *Churupa Punctated var. Watson* (3), *French Fork Incised var. Trinity* (2), *Larto Red var. Tendal* (5), *Troyville Stamped var. Bayou Rouge* (1), *Woodville Red var. Woodville* (early variety, 9), *Marsden Rim var. Marsden* (3), *Officer Rim var. Lyon* (1), and *Phillips Rim var. Timberlain* (2).

Next, is an Early Sicily Island component, represented by *Avoyelles Incised var. Lake Place* (1) and *unspecified* (1); *Evansville Punctated var. Bijou* (1); *French Fork Incised var. Artonish* (5) and *Buffalo River* (19); *Mazique Incised var. Hendrix* (19); *Chase Rim var. Warden* (2) and *Waverly* (1); *Joffrion Rim var. DeChard* (5); and *Phillips Rim var. Alfred* (1), *Braddock* (1), *Crum* (10), and *McAllister* (10). This component is succeeded by a Late Sicily Island component, identified by *Coles Creek Incised var. Dozier* (3), *French Fork Incised var. Wolf Prairie* (8), *Mazique Incised var. Mansura* (5), *Chase Rim var. Wade* (2), *Marsden Rim var. Rumsey* (1), *Phillips Rim var. Lenore* (28) and *Shavin* (1), and *Stoner Rim var. Cooter Point* (2).

Following this is an Early Coles Creek component, which includes: *Coles Creek Incised var. Coles Creek* (2) and *unspecified* (1); *French Fork Incised var. French Fork* (11), *Sicily Island* (3), and *unspecified* (1); *Mazique Incised var. Back Ridge* (1); *Joffrion Rim var. Joffrion* (1) and *Bartholomew* (1); *Officer Rim var. Voorhies* (1); and *Phillips Rim var. Glover* (22). There is a Middle Coles Creek component represented by *Pontchartrain Check Stamped var. Pontchartrain* (204) and *Tiger Island* (2) and a Late Coles Creek component, represented by *Coles Creek Incised var. Athanasio* (2) and *Blakely* (1).

Additional materials recovered from Bayou Tortue include a complete miniature plain vessel, a pottery boatstone, fragments of baked clay (daub or fire pit linings?), bone projectile points and awls, and food residue (i.e., freshwater mussels, *Rangia*, deer, turtle, raccoon and other small mammals, alligator, bear, gar, catfish and other fish, and human (*Gibson 1976a:Tables 14-15*).

Stone artifacts include finished arrow points but very little debitage and debris from their manufacture. Points consist of *Friley*, *Alba*, *Scallorn*, *Catahoula*, *Livermore*, *Fresno*, and unidentified types (*Gibson 1976a:Table 14*). These types, especially the *Friley*, *Livermore*, and *Fresno* types, are typical of the Caddoan area of the Red River Valley in northwestern Louisiana and may bear witness (although centuries before the fact) to an observation, reported by *Dyer (1917)*, that *Attakapa* Indians traded with friendly Indians to the north for their arrow points. The *Attakapa* were the historic natives of the *Vermilion*.

The excavations in the black midden at Bayou Tortue also uncovered a cemetery containing extended, flexed, and isolated skull burials massed in an area of the midden dominated by Middle Coles Creek ceramics, primarily *Pontchartrain Check Stamped*. No grave goods per se were associated with the inhumations, and the jumbled nature of the interments suggests a) a mass burial, b) repeated grave digging through older burials, or perhaps c) churning due to modern pot-hunting. Of even more interest was the occurrence of fragmentary human bones in

general midden context, a situation suggesting cannibalism, such as was reportedly practiced by the Attakapa Indians (*Dyer 1917*). Breakage patterns and apparent cut marks on the bones have not been studied adequately to confirm the interpretation of cannibalism.

Pottery from Beau Rivage, on the opposite bank of the river, indicates an Issaquena occupation, represented by Marksville Incised *var. Yokena*, Churupa Punctated *var. Churupa* and *Thornton*, and Marksville Stamped *var. Manny* (*Gibson 1976a:Table 20*); a Troyville and/or a Sicily Island component, represented by Marksville Stamped *var. Troyville*, Mulberry Creek Cord-Marked, Larto Red, Hollyknowe Ridge Pinched, French Fork Incised, Alligator Incised, and Evansville Punctated; and a Middle Coles Creek component, represented by Coles Creek Incised *var. Greenhouse* and *Coles Creek*, Chevalier Stamped, and Pontchartrain Check Stamped *var. Pontchartrain*. None of these components is as extensive as the corresponding occupations at Bayou Tortue, less than a half kilometer away.

The third spot, Hotard Airport West, is smaller yet; only three sherds and a primary flake of gravel were found, and only one of the sherds was decorated—French Fork Incised *var. French Fork*, suggesting a late Sicily Island or early Coles Creek component (*Gibson 1976a:Table 19*).

Thus, with the exception of these three sites (which may really be one) at the Vermilion gap, the river truly seems deserted. The appearance of vacancy extends to contiguous areas. An intensive survey of selected stream segments in the upper Vermilion-mid-Teche Ridge locale, an area encompassing over a thousand square kilometers, produced no components dating to the period between A.D. 1 and 1100, out of the recorded sample of 78 identifiable components from 45 sites (*Gibson 1990a:101*). Eleven centuries of habitation should have left some identifiable remains, even if some or most of them did not fit cultural classification criteria very well. If people had lived in Vermilion country, like their Poverty Point and Tchefuncte forbearers, we should have found evidence of it, yet we have not.

Two different conclusions may be drawn from these findings: one, people moved away from the Vermilion River, far away, or, two, atomized settlement replaced dispersed settlement on the river—people left the "country" and "moved to town." Since the estimated span of the Tchefuncte period and the post-Tchefuncte span (excluding Plaquemine and later manifestations) are both around a thousand years long, differences in the absolute number of components attributed to each span should reflect changing demography, rather than time. There are only three post-Tchefuncte components, compared to 13 Tchefuncte components from the same eight kilometer strip of river. The difference is even more dramatic if the three post-Tchefuncte components are really part of one big settlement, as their proximity suggests. If we bring the contiguous upper Vermilion-Teche Ridge area into consideration, then we have 31 Tchefuncte components as opposed to only four later components (again excluding Plaquemine components) along surveyed streams in the thousand square kilometer plus area. It is easy to see from these figures why one might conclude that people had left the country in droves, leaving the land nearly deserted. But was it?

A major natural event did reshape the landscape just at the time when occupation seems to disappear. Gibson's excavations along the Vermilion have shown that the Red River abandoned its course down Bayou Teche during late Tchefuncte times, leaving an underfit bayou (Bayou Teche) in its place. The Vermilion River was a major Red River distributary, connected to the main Red-Teche river by its major headwater, Bayou Fusilier. Why the river shift would have had anything to do with ousting people from the Vermilion swamp is not clear. If anything, the diversion would probably have resulted in an environmental succession with an even greater food potential than the environment associated with the active Red River and its main high water release valve, the Vermilion. In other words, the river diversion probably improved, rather than impaired, the economic capacity of the land, at least at the outset. Why people would leave a land of even greater economic opportunity than had supported so many of their immediate ancestors does not make sense. Something else had to be involved, or else, maybe the people did not really leave.

The one large long-occupied settlement or cluster (series) of sites, located at the Vermilion gap, offers a key for testing the river desertion hypothesis. The Vermilion gap supported a long, apparently continuous, occupation from Late Tchefuncte through Plaquemine times, marked by a succession of components including Late Tchefuncte, Issaquena, Early and Late Troyville, Early and Late Sicily Island, Early and Middle and Late Coles Creek, and undifferentiated Plaquemine. It seems to be the only inhabited place on the river after Tchefuncte and until Plaquemine times.

Did the gap become home to all descendants of peoples who had previously lived along the river and in the adjoining swamps? Did the square kilometer area or so at the gap become home to all or most of the Vermilion's people during the interregnum? If so, then would one expect the gap to have sustained a population similar in size to Tchefuncte populations, which had been spread across the entire Vermilion vicinity?

Post-Tchefuncte occupation zones at the gap (Bayou Tortue-Beau Rivage-Hotard Airport West) are extensive and include black earth middens covering more than 15,000 square meters. This indicates a fairly large village or villages. Based on midden extent, we can estimate between 100 and 150 inhabitants lived at the gap, if all living areas had all been occupied at the same time (*Gibson 1974a: Figure 2*). However, midden was produced over a thousand year span, making it more likely that only parts of the total habitation area were utilized at any given moment. This means that the 100-150 people estimate is probably too high. Population estimates are used here, not to stir controversy about whether archeologists can accurately estimate prehistoric populations or not, but to simply give an idea of demographic magnitude or scale. We are not talking about multitudes or probably even hundreds of people, but scores.

In comparison, Tchefuncte midden or activity areas in the Vermilion gap not only occur everywhere later midden occurs but occur outside those zones. So, if we use site extent as a measure of population, Tchefuncte population appears to outnumber post-Tchefuncte population, even in the Vermilion gap, the one place where later peoples all seem to have congregated. And Tchefuncte sites, some as large as the Tchefuncte midden exposures in the gap, occur by the dozens along the river and out in the swamp. This makes it reasonable to conclude that

Tchefuncte population on the Vermilion was indeed larger than populations during any other time. We think it is also reasonable to conclude that the Vermilion was nearly deserted after Tchefuncte times. A few of the river's later inhabitants congregated at the gap, but the fate of the others, if there were others, is unknown.

## Plaquemine

With the onset of the Plaquemine period, people returned to the Vermilion locality but not in the same numbers or to the same places, as before. Returning populations opened new haunts along previously unused bayous and generally disposed themselves in small camps, which differed significantly from the village-dwelling Tchefuncte people (*Gibson 1990a*).

Seventeen Early Plaquemine components have been reported within 30km of the Vermilion gap by two extensive surveys, one along the Vermilion River (*Gibson 1976a*) and the other along a number of streams draining the Teche Ridge, just east of the Vermilion River (*Gibson 1990a*). This is still only about half the number of known Tchefuncte components from the same area, but it is four times the number of sites that date to the interregnum (i.e., the first Christian millennium). In addition, Plaquemine components are smaller on the average than Tchefuncte components, ranging between 200 and 10,000 square meters (*Gibson 1990a:105*), tend to have fewer artifacts, and are associated with a variety of environmental niches, ranging from natural levee crests to the lowest parts of swamps (*Gibson 1990a*). They also are found up on the Coteau Ridge at the Vermilion gap.

Typical Plaquemine ceramics occur at Beau Rivage, where Plaquemine Brushed var. *Plaquemine* (32); Mazique Incised var. *Manchac* (28); Coles Creek Incised var. *Hardy* (9); L'eau Noir Incised var. *L'eau Noir*, *Australia*, and *Evangeline* (5); Avoyelles Punctated var. *Dupree* (1); Maddox Engraved var. *Emerald* (3); and Leland Incised var. *Natchez* (1) are represented (*Gibson 1976a:Table 20*). Across the river, Bayou Tortue's small Plaquemine component has Harrison Bayou Incised var. *Harrison Bayou* (2), Plaquemine Brushed var. *Plaquemine* (3), and L'eau Noir Incised var. *Evangeline* (2). Other Vermilion area components, such as the Lafayette Mounds (*Ford and Quimby 1945*), have the same array of types.

The reopening of the swampland by sizeable or far-ranging Plaquemine groups has intriguing implications, historically and adaptationally. First, historically, the way the country side "filled up" so quickly implies that Plaquemine people were poised nearby, ready to "rush" back into an area their ancestors had largely vacated a thousand years before, and this, in turn, implies that there ought to be significant Late Coles Creek and early Early Plaquemine representations, just outside the Vermilion locality, probably along the Teche Ridge and the Atchafalaya Basin to the east and northeast. But if we expect to see a large number of Plaquemine sites in those localities, we will be disappointed (*Gibson 1982, 1990a*). What we do see is a few large Plaquemine sites, sites with several large mounds and extensive middens. Bayou Portage Guidry, near Henderson, is one of these sites. Its Early Plaquemine affiliation has been confirmed by excavation (*Gibson 1990a:Table 2*).



Another large multiple mound site on Crab Lice Bayou, southeast of Port Barre, may be another Plaquemine component, although we have no artifacts to prove it. Furthermore, the western Atchafalaya Basin is under-explored, and other large sites may yet be discovered. Sites, like these and others, are sources of the new wave of Vermilion occupants. These emergent Plaquemine people did not just arise on the Vermilion River or out in its flanking swamplands.

The second point to be made about Early Plaquemine settlement concerns adaptation, or land use. Although Plaquemine sites occur in a variety of settings, as did Tchefuncte, Plaquemine and Tchefuncte sites occur in different locations. Only five Plaquemine components have been identified on the Vermilion River, and two of the major components occur at the long-occupied Bayou Tortue and Beau Rivage sites. Except for these two sites and the Lafayette Mounds upstream, no other known site bears both Tchefuncte and Plaquemine components. Thus, not only did Plaquemine people not chose old abandoned sites for their homes and work places, but they often lived along entirely different bayous or sections of bayous. For example, Plaquemine sites occur on the upper Vermilion River above the mouth of Bayou St. Clair and are particularly numerous on Bayou Fusilier, the eastern head branch of the Vermilion, but no Tchefuncte sites are known from these particular stretches (*Gibson 1976a, 1990a*).

This may reflect changing stream patterns, but the fact that Tchefuncte sites are located on streams which are active today means that the streams were active during Plaquemine times, since Tchefuncte precedes Plaquemine. Even if those streams or channel segments favored by Plaquemine settlers did not exist during Tchefuncte times, the fact remains that streams bearing Tchefuncte sites on their banks were flowing and could have been occupied if Plaquemine people had wanted to do so. They obviously preferred other streams, and this evinces a difference in land use between the two periods. The reasons for this difference are hidden in the nature of the sites.

Gibson has suggested elsewhere that one reason for land tenure changes in the Vermilion vicinity may have been horticulture (*Gibson 1990a*); Tchefuncte did not practice it and Plaquemine did, although only in a pragmatic way (when and if feasible). The stream sections where Plaquemine components are most numerous lie closest to Bayou Teche, which is the main source of water for the Vermilion. The Bayou Fusilier arm of the Vermilion originated as a crevasse on the Teche-Mississippi River and was subsequently utilized by the Red River during high water stages. The Red River aggraded the old Mississippi channel to the point where Bayou Fusilier began to function as a primary distributary and, after the Red abandoned the Teche channel, continued aggradation by the underfit Bayou Teche brought the flow of both streams to a level where the Bayou Fusilier simply became a permanent partial flow channel.

This lesson in geomorphic development is only to say that the stream stretches which support the strongest settlement during the Plaquemine span are the sections that have the coarsest and most unconsolidated sediments and that experienced the most drastic water fluctuations each year, fluctuations brought on by the rise and fall of water levels in the Mississippi system. Water-level fluctuations would have promoted a rank growth of herbaceous vegetation and other pioneer wetland plants. This means one, that the extent of soil of excellent

tilth would have been much larger than further downstream, where coarser sediments simply drained out into the swamps and were lost, and two, that ground cover would have been virtually nonexistent or could have been easily eradicated with dibbles or hoes. Both of these conditions are conducive to horticulture, and the areas with these conditions are the very same areas where Plaquemine components are most abundant. Is the correlation accidental? Did Plaquemine sites just happened to wind up on the best farmland, whereas sites of foragers were nearly nonexistent? We hardly think so.

Although horticulture may help explain why most of the Plaquemine land had not been exceptionally important earlier, it must be emphasized that not all claims were on prime farmland. Plaquemine sites occurred in a variety of environments, including the swamps which would have not been suitable for gardening at all. We suspect this evidences a relatively broad-spectrum subsistence strategy, of which horticulture was only a part, perhaps even a minor or variable part. Hunting, fishing, and gathering activities are all suggested by broad environmental dispersal. Economic pragmatism seems to be a fitting label for Plaquemine adaptation in the Vermilion vicinity. Actually such a characterization is not as great an interpretive leap from the empirical record as it is an acknowledgement of the historically recorded condition of the pragmatic Attakapa, who sometimes farmed, sometimes fished, sometimes hunted, sometimes gathered, and sometimes traded—a people who did whatever it took to get whatever they wanted whenever they decided to. The Attakapa were the historic occupants of the place where the river and the ridge meet.

## Summary

The Vermilion River and nearby high terrace land, the Coteau Ridge, experienced activity during the entire span of human occupation of the Lower Mississippi Valley. Occupation was heavier during some periods than others, especially during the Tchefuncte and, to a lesser extent, the Plaquemine spans. Some periods saw the area nearly deserted, with only a few people clinging the bluff at the Vermilion gap. The Vermilion gap was a major focus of long-distance exchange during the Poverty Point period. It was one of the few spots in the Lower Mississippi Valley where pre-Marksville mounds were built in substantial numbers and where the very earliest pottery, fiber-tempered and untempered, was made. All told, a substantial amount of past human experience is incorporated into the landscape along the river. This brief account of that experience is limited by available data and a cultural historical outlook, but, for the moment, it provides a starting point for more comprehensive exposition and an open challenge to those who would dare join the search.

## CHAPTER FIVE HISTORIC DEVELOPMENTS

### Exploration and Colonization

French aspirations to extend their mercantile interests westward from the St. Lawrence Valley were begun by Jaques Cartier in the sixteenth century. These endeavors increased during the seventeenth century with the arrival of La Salle in the Illinois country and Father Jacques Marquette and Louis Joliet in the Central Mississippi Valley during the 1670s. French commercial enterprise extended into the Lower Mississippi Valley with the descent of La Salle and Henri de Tonti to the Gulf of Mexico in 1682.

Interaction with Native American cultures throughout the Lower Valley was established by La Salle and several Tonti expeditions. Relations were subsequently enhanced by the arrival of French couriers de bois and English traders from the Carolinas (*Crane 1928*). French mercantile interests reacted to the English presence by financing the colonization of Louisiana under the governorship of Iberville at Biloxi and Mobile in 1699.

Although European rivalry over trade routes during the late seventeenth and early eighteenth century's expanded contact with Native American cultures in the Lower Mississippi Valley, continuous conflict over these international commercial interests shifted the imperial efforts of the French towards the periphery of the project area and inland to the larger interior tribes of the Gulf Coastal Plain.

Following the termination of Queen Anne's War in 1713 the French reallocated resources to establish garrisoned trading posts at Fort Toulouse, Fort Rosalie, and Fort St. Jean Baptiste. This policy introduced a shift in native trade patterns that initially circumvented European contact with the Native American cultural groups in the region of the project area.

However, by 1714, contact with the Attakapa and Opelousa, the Native Americans residing within the project area, had been established through a Calumet Ceremony at Dauphin Island. Expeditions by Belle Isle, La Harpe, and others into the Attakapa territory in the 1720s culminated in the establishment of ungarrisoned trading posts on the upper (Port Barre) and middle (St. Martinville) Bayou Teche by the 1730s (*Allain and Cassidy 1967, 1968*).

The Attakapa, Opelousa, Bidias, Deadose, and Akokisa are linguistically related tribes collectively known as the provincial Attakapa. These tribes occupied a sizeable territory from the Vermilion River Valley in Louisiana to the Trinity River Valley in Texas. The Attakapa Proper, estimated by Bienville to number 200 warriors by the 1720s, inhabited villages along the Teche, Vermilion, Mermentau, and Calcasieu rivers (*Swanton 1911*).

The Attakapan village of Lamonier was located within the vicinity of the project area. Although the archeological remains of the site have never been discovered, the village was documented in a 1760 land purchase agreement between an Attakapan Chief and a retired French officer (*Swanton 1911*). Known sites of the Attakapa in the general region include the Bel site (16CU127), the Bayou Guy site (16CU169), and possibly the Little Pecan Island (16CM43) and the Little Chenier (16CM22) sites (*Weinstein 1985*).

Ethnographically, the Attakapa have been described as retaining a Woodland culture based on seasonal rounds of hunting, gathering, and fishing well into historic times. With agriculture non-existent and horticulture of little importance, the Attakapa subsisted on a variety of food sources within the prairies and marshes of southwestern Louisiana (*Aten 1983; Swanton 1911*).

Early in the historic period the Attakapa seem to have been engaged in a trade network, importing lithic materials through the Opelousa, Osage orange bowwood from the Caddo, and ceramics from the Lower Mississippi Valley and the Texas coast, and exporting salted fish, Spanish moss, shell, bitumen, and plumage (*Dyer 1917; Gibson 1976a; Kniffen et al. 1986*). As European encroachment increased, the Attakapa expanded their trade to include deerskins, tallow, slaves, and stolen Spanish cattle and horses (*John 1975*).

Throughout the French regime an indigenous exchange network with fluid intercultural relationships developed within Louisiana based on a frontier economy pieced together by subsistence and commercial endeavors that included farming, herding, hunting, gathering, trade, and transportation activities. Colonial society included European settlers and servants, African slaves and craftsmen, and Native American traders, peddlers, and wage earners from neighboring villages.

The economy included exports of indigo, corn, timber, tile, tobacco, myrtle wax, and Native American slaves for the Caribbean Islands. The character of slavery and race relations within the colony of Louisiana was affected more by the preferences of a fluid local society than by the mercantile interests of a few colonial elite established on large concessions near Pointe Coupee and New Orleans. Not until the Spanish regime would the beginning of commercial agriculture, dependent upon slavery, arrive within the Lower Mississippi Valley and the vicinity of the project area (*Usner 1985*).

By the 1740s traders such as Joseph Blanpain, Jacques Courtableau, and Andre Fabry de La Bruyere had increased exchange with the Attakapa and Opelousas to include peltries, bear oil, horses, cattle, tallow, and slaves. In 1744 alone, Fabry delivered over 3000 pounds of deerskins

to a La Rochelle merchant in New Orleans. The Attakapa became well known for the "Attakapa ponies" they bred that were utilized in the deerskin packtrains (*Usner 1985*).

By the 1760s former traders, New Orleans and Mobile merchants as well as discharged military officers and their families from Alabama had established large vacheries, or cattle ranches, based along the Bayou Teche on large tracts of land. These ranchers, such as Edward Masse, Louis Grevemberg, Alexandre De Clouet, Paul Delahoussaye, and Jean D'Hauterive, stocked their herds with Spanish cattle they obtained from the Attakapa Chiefs. The Grevembergs had registered their cattle brand as early as 1737 (*Conrad 1990*).

These Creole vacheries operated out of the higher lands along the Bayou Teche and into the open prairies. The Acadians who arrived later would expand these vacheries westward into the Vermilion Valley and the prairies beyond. In the census of 1766, the 50 old vacheries contained 15,000 head of cattle out of a total of 25,838 for the entire colony of Louisiana. The Acadians, two years after arriving in the Attakapas District, registered 1,000 head of cattle in the same census (*Usner 1985*).

In 1760 Fusilier de la Clair purchased a tract of land immediately adjacent to the project area from the Attakapa Chief Skunnemoke. The land fronted the Vermilion and Teche Bayous for two leagues north to south. This was also the location of the Attakapan village of Lamonier (*Swanton 1911*).

While title to such immense land claims was recognized by the French on the basis of occupancy, the Spanish based title to real property on grants. When the Acadians arrived in the Attakapa territory during the Spanish regime a rash of property disputes ensued, which pushed many early settlers or their children west into the prairies and into the project area (*Brasseaux 1987; Conrad 1990*).

With the cessation of hostilities after the French and Indian War, the French Crown relinquished possession of that portion of the colony of Louisiana west of the Mississippi and the Isle of Orleans to Spain in 1763. The British took possession of the Florida Parishes and the French Territory in the future states of Mississippi and Alabama.

The Spanish pursued an active policy of settlement through a generous Land Grant system that encouraged the first large European immigration into the region of the project area. Retired French military officers, enlisted men, and administrative officials from the Alabama Posts; New Orleans and Mobile merchants; Acadian exiles; Canary Islanders; some English speakers; and free people of color were grantees of Spanish land patents within the region during the 1760s and 1770s. The Acadians were the first Europeans to settle within the project area (*Conrad 1990*). The population of the Attakapa and Opelousas Districts rose from 492 in 1766 to 2,408, including 1,182 slaves, by 1785. By 1806 the renamed American Attakapas County included a population of 4,922, including 1,826 slaves and 166 free persons of color (*Conrad 1992*).

Although European settlement initially encroached upon and eventually dispersed the Attakapa from their former territory, 60 warriors from the Vermilion River village and 120 warriors from the Mermentou River village assisted in Spanish-led expeditions against the British during the American Revolution. The Vermilion village of the Attakapa remained occupied until the 1830s (*Swanton 1911*).

The first contingent of Acadian exiles to immigrate to Louisiana were led by Beausoliel Broussard, arriving at the Poste des Attakapas in 1765. Upon arrival they purchased cattle and dispersed along the Bayou Teche on unoccupied lands between La Manque (Breaux Bridge) and Fausse Pointe (Loreauville). An unknown epidemic during 1765-1766 encouraged the Acadians to disperse even further and settle on land at La Pointe (Parks), Cote Gelee (Broussard), and Prairie des Coteaux (Opelousas) (Figure 4). By 1785, additional settlements were established in the areas of Vermilion River, Bayou Carencro, Chicot Noir, Bayou Plaquemine Brule, and Prairie Belleview (Figure 5).

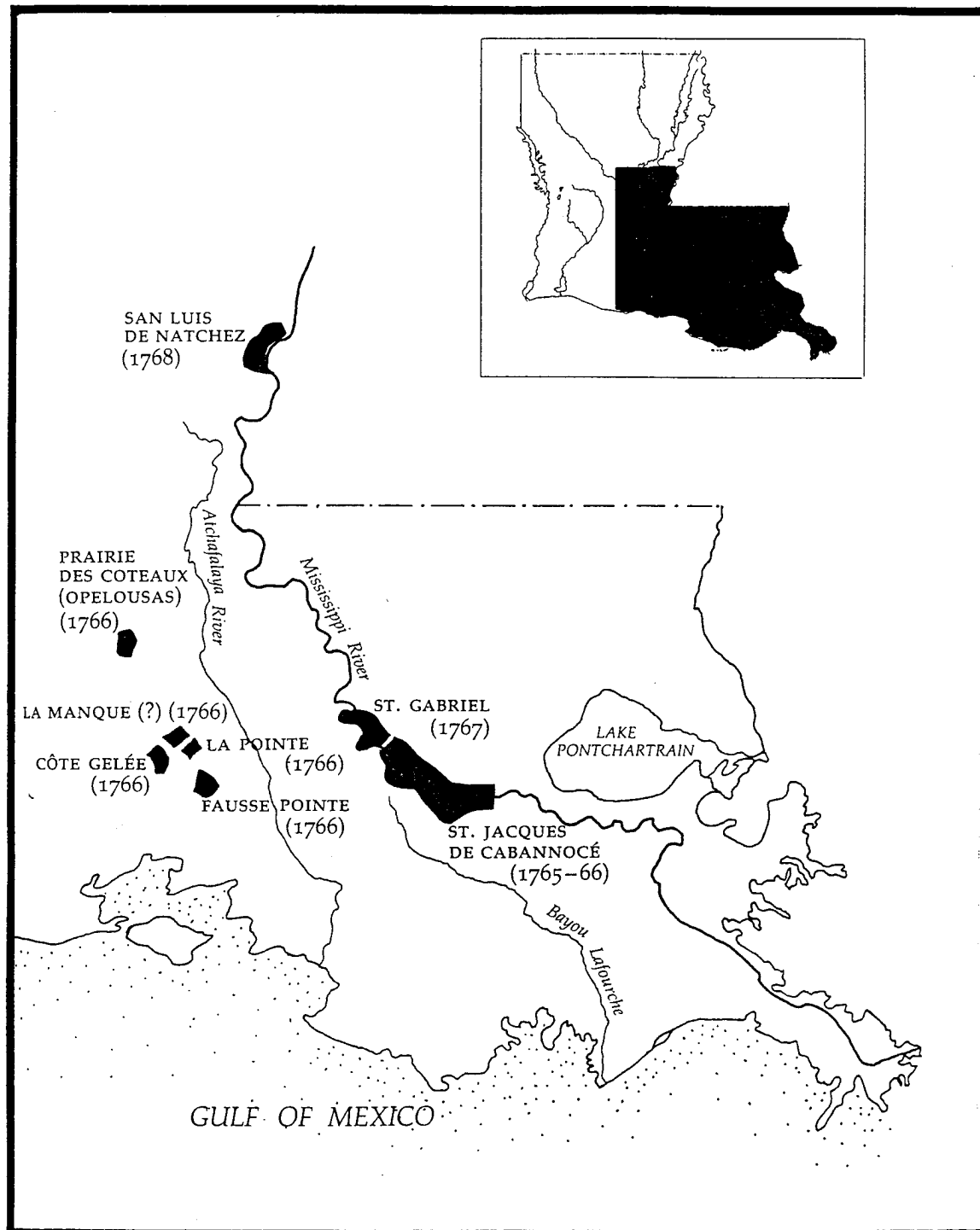
By the late 1770s 12 families had settled at Grand Prairie (North Lafayette) and six families had settled in the upper Vermilion at Beaubassin on bluffs overlooking Mauvais Prairie, the location of the four project tracts (*Brasseaux 1987*). Spanish land grants were accorded to Laurent Ducrest in 1776 for Area B, Alexandre De Clouet and his wife Louise Favrot in 1772 and 1776 for Areas C and D respectively, and Nicolas Provost in 1781 for Area F.

Pierre Dugas, who purchased Area B, and others in the Beaubassin area were supplying the Spanish with cattle grazed on Mauvais Prairie during the American Revolution and continued to supply New Orleans with cattle throughout the Spanish regime. While some of the wealthier Creoles maintained large herds in the area, by 1803 the average Acadian vacherie included 125 head of cattle and 23 horses (*Brasseaux 1987*).

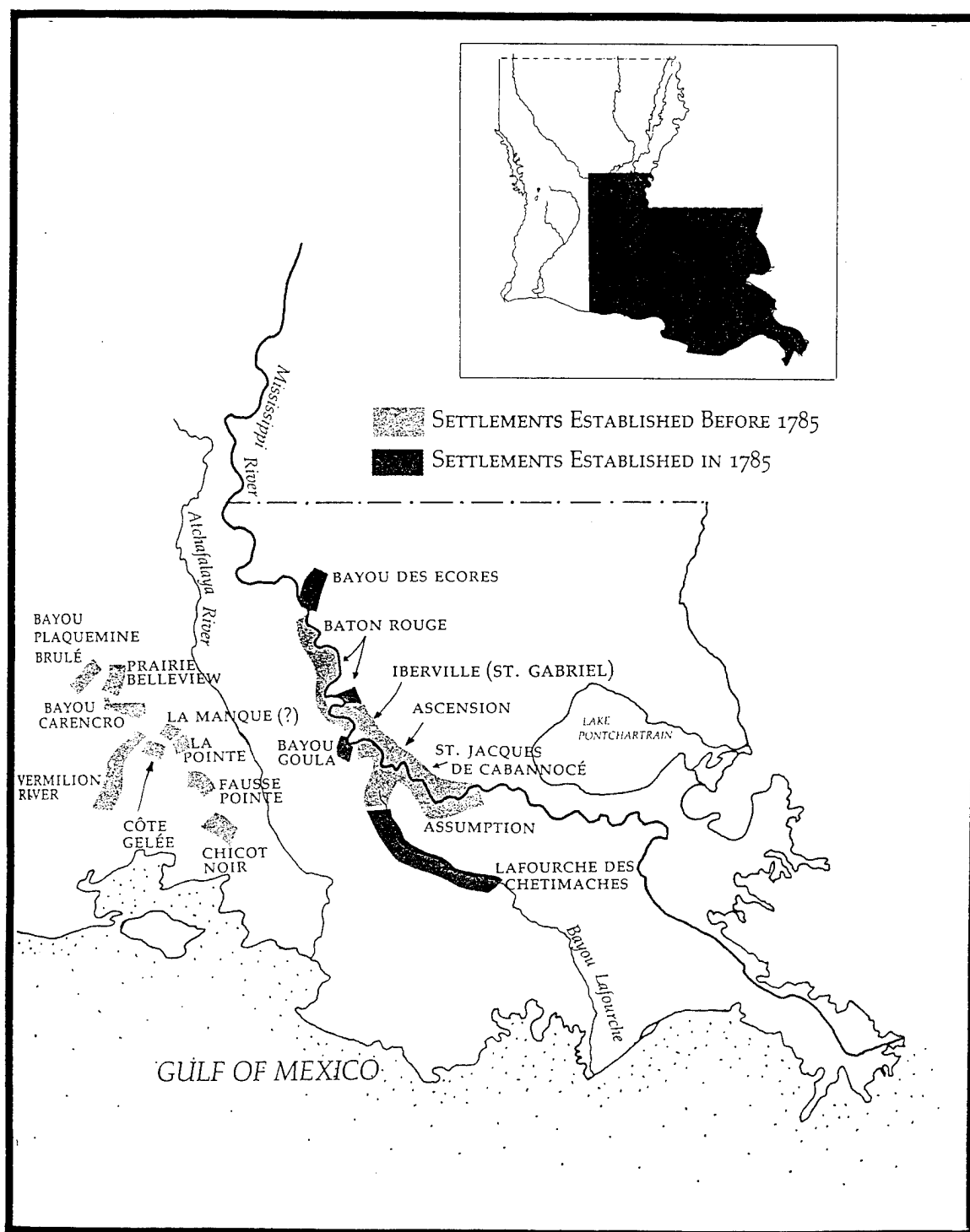
The commercial policies of the Spanish and English Regimes integrated the Lower Mississippi Valley into the world market for the first time. The introduction of large-scale agriculture and the associated sociocultural impact of slavery upon race relations impacted every aspect of colonial society. While the idyllic image of the Acadian *petite habitants* subsisting on the bayou in the Attakapas District may have been true in the 1790s when 3.5% of the Attakapas households owned slaves, by 1810 56% of the households in the predominately Acadian Attakapas Territory owned slaves (*Brasseaux 1987*).

### **Antebellum Louisiana**

The acquisition of Louisiana by the United States in 1803 ushered in a new era of political administration, economic growth, and cultural influence. American jurisdiction within the Attakapas District and the Vermilion Valley commenced with the arrival of Lt. Henry Hopkins in St. Martinville in January 20, 1804. Civilian administration began in 1805 with the arrival of the first district judge, Edward C. Nicholls (*Conrad 1992*).



**Figure 4. Areas of Acadian Settlement, 1760s.**  
(from Brasseaux 1987:Map 2)



**Figure 5. Areas of Acadian Settlement, 1785.**  
(from Brasseaux 1987:Map 3)



The separation of police and judicial functions and a provision to provide evidence of proprietorship for former land grants were the only requirements requested by the new American political administration. Legal documents continued to be published in French and English until 1898 and as late as the 1970s Louisiana's legal tradition was still significantly based on the Napoleonic Code.

Immigration into the area and an extremely high birth rate among the Acadians was substantial enough during the early part of the period to warrant the creation of new political jurisdictions within the former Attakapas District (Figure 6); these included St. Martin (1811), St. Mary (1811), and Lafayette Parishes (1823). The administrative seat of Lafayette Parish was established in 1823 on land donated by Jean Mouton. The village was initially named Vermilionville in honor of the Catholic Church St. John the Evangelist de Vermilion. Many in the community had originally vied to name the village Lafayette, and despite the formal name of Vermilionville the name of Lafayette became synonymous with the village during this period as visits to the courthouse distinguished this community from outlying areas of the parish. In 1884, the name of Vermilionville was formally changed to Lafayette.

While the population of the region increased from 4,922 in 1806 to 12,063 in 1820, immigration continued to include Anglo Americans, African slaves, free persons of color, French refugees from Saint Dominique, and Europeans fleeing the French Revolution. By the 1820s a distinctive settlement pattern of ethnic enclaves had been established within the Attakapas region (Figure 7) (*Conrad 1992*).

In 1820 Acadians accounted for 42% of the total households in the Attakapas region. These households were concentrated in the middle and upper Bayou Vermilion Valley and in the middle Bayou Teche Valley at Loreauville and between Cecilia and Parks. Non-Acadian French accounted for 40% of the total households within the region and were concentrated in the middle Bayou Teche from Parks to Centerville. They also settled on the higher ground along Bayous Petite Anse, Cypremort, and Sale and below the Acadians on Bayou Vermilion (*Conrad 1992*).

Anglo Americans accounted for 18% of the total households within the region and settled in the lower portions of Bayous Vermilion, Petite Anse, Cypremort, Sale, and Teche. These were English planters who remained a minority in the predominately Acadian population of the Attakapas region.

Two other ethnic groups in the region during the 1820s were the Spanish, who settled in New Iberia, and free people of color who had noticeable concentrations in St. Martinville and Baldwin and sizeable minorities in Vermilionville, the upper Bayou Vermilion, and Opelousas. By the 1820 census African slaves accounted for 47% (5,707) of the population in the region (12,063) (*Conrad 1992*).

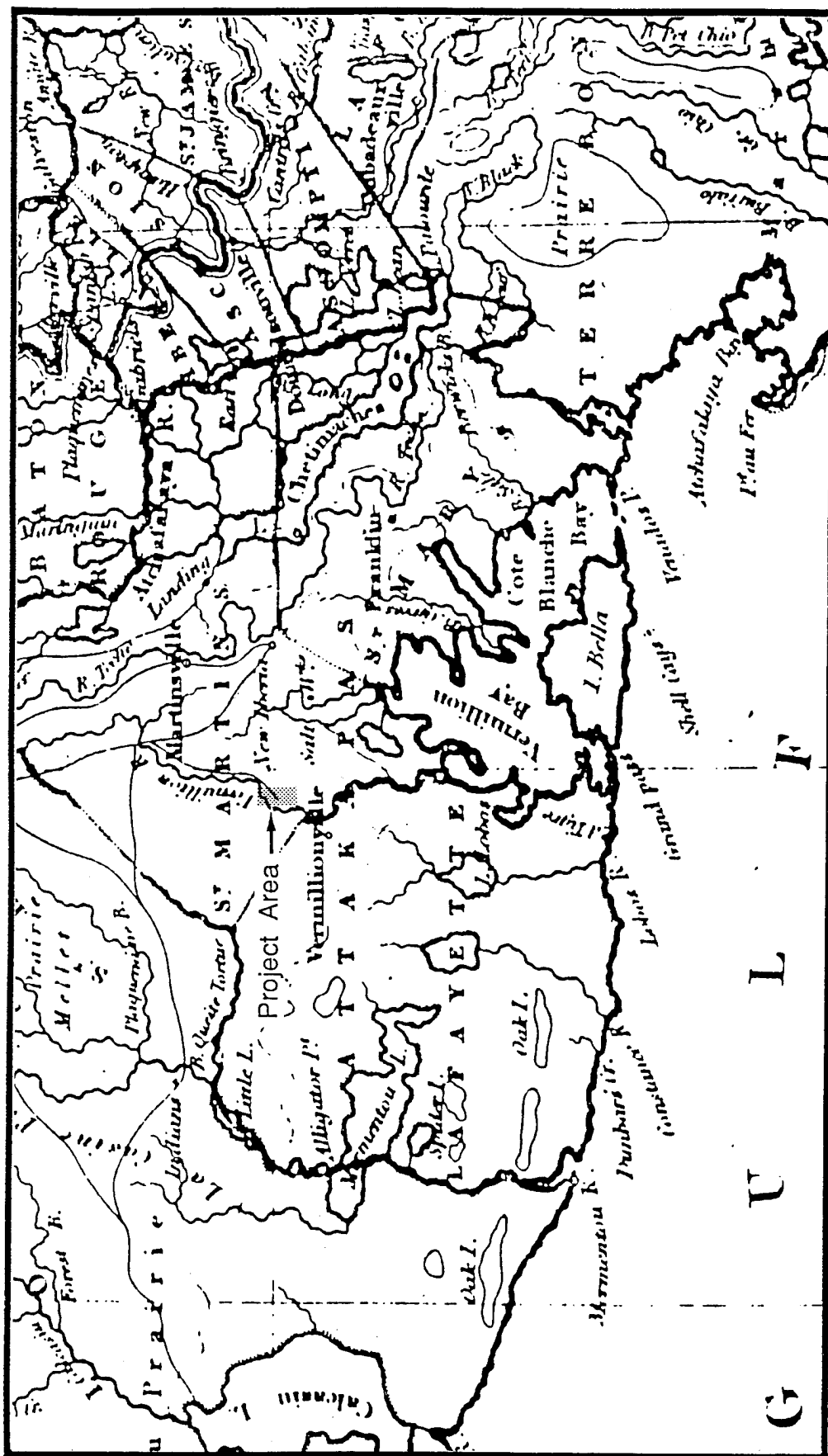
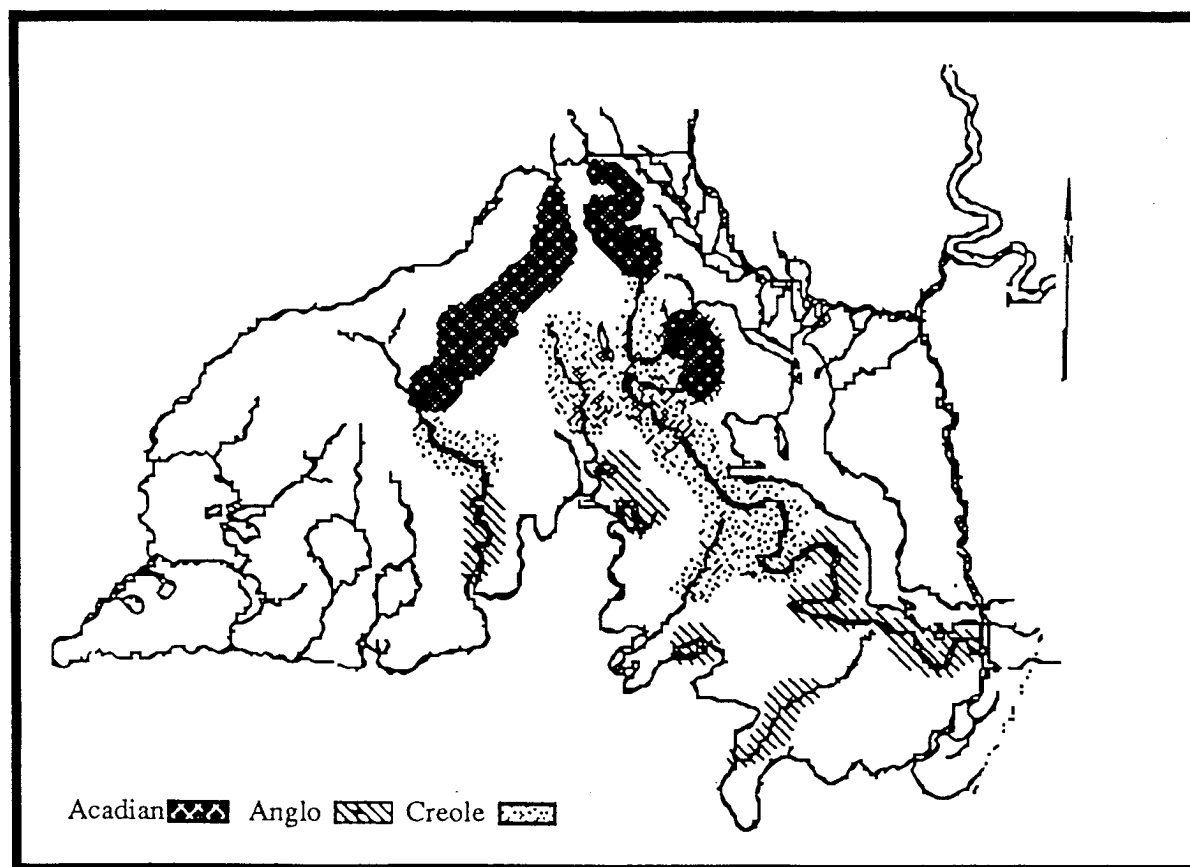


Figure 6. 1833 Map showing the Attakapas District, Vermilionville and newly established parishes.  
(from Goodwin and Associates, Inc. 1985:Figure 10)



**Figure 7. Settlement Patterns in the Attakapas.**  
(from Conrad 1992)

Native Americans in the region included the Taensa who moved south of Loreauville in the 1820s and became affiliated with the Chitimacha and the Attakapa band of Chief Skunnemoke. Sometime after 1760, this group established a village near Milton on the Bayou Vermilion. This is the date Skunnemoke sold his lands and the village of Lamonier to Fusilier de la Clair. The village near Milton remained occupied until the 1830s (Swanton 1911).

Throughout the Antebellum period the population and the ethnic diversity of the Lafayette Parish area continued to grow. While African slaves continued to enter the area as industrial agriculture expanded, French and Swiss fugitives from the European Revolutions of 1848, along with Eastern European Jews and Anglo Americans, immigrated into Vermilionville as artisans, merchants, and professionals and contributed to the community's economic growth.

By the end of the period clear cultural distinctions of ethnic origin still existed in the population of Lafayette Parish. Blacks accounted for 45%, Acadians accounted for 29%, white Creoles accounted for 12%, Anglo Americans accounted for 9%, and French and Swiss immigrants accounted for 3% of the population within the project area in 1870. However, by the end of Reconstruction, immigration into the area and intermarriage among these groups would weld these enclaves into a mixture of Native American, French, African, Spanish, Acadian, and

Anglo American cultural traits that eventually would be called Cajun and Creole (*Brasseaux 1992*).

Vermilionville would emerge within the area as a cultural and economic crossroads for the Lafayette Parish region (Figure 8). Lafayette Parish expanded from a population of 5,653 in 1830 to a population of 9,003 in 1860. The population of Vermilionville increased from 173 in 1850 to 497 in 1860 and expanded further in the aftermath of the Civil War to 777 by 1870. By 1850 the largest cultural group within Vermilionville were free persons of color who accounted for 36% of the population.

While Vermilionville played a prominent role in the communication network of the region (Figure 9), the arrival of steamboat navigation and the establishment of commercial agriculture encouraged the emergence of a regional market redistribution center within the community. The regional economy expanded during this period based on the development of commercial and limited industrial agriculture, the cattle industry and the emergence of a middle class of artisans, merchants, and professionals in Vermilionville (*Dismukes 1972*).

The spread of commercial agriculture up the Bayou Vermilion was encouraged by the success of growing cotton and sugar as cash crops. While 55% of the predominately Acadian households of the region had entered into the commercial production of cotton by 1850, only 6% had attempted the more highly capitalized commercial production of sugar. However, during the decade of the 1850s, Lafayette Parish farmers diversified and increased rice production from 2,000 pounds at the beginning of the decade to 380,000 pounds in 1860.

Even though slavery had existed and grown within the region throughout the Antebellum period, industrial agriculture and its associated large-scale plantation system dependent upon a huge-slave work force did not develop extensively. What did develop was a profusion of small plantations and vacheries. While 50% and 49% of the households in Lafayette Parish owned slaves between 1830 and 1840 respectively, 83% and 77% of these households owned fewer than 10 slaves. However, by 1860, although 83% of the Acadian households in Lafayette Parish owned slaves, only 3% of these, including Zenon Broussard who owned the land on which Area F is located, owned more than 50 slaves (*Brasseaux 1992; Dismukes 1972*).

Following the emergence of commercial agriculture and the small industrial plantation system along the Bayou Vermilion, many small farmers sold their percentage of family landholdings and moved west into the prairies where they pursued a seasonal folklife style of ranging livestock, subsistence farming, and hunting throughout the prairies. Migrating in groups of relatives, these *petite habitants* established strong patterns of socioeconomic cooperation in isolated frontier settlements. In 1860, 30% of the farmers in the area owned less than \$100 in real estate, and many households were propertyless (*Post 1974*).



Figure 8. 1848 Map of Louisiana, showing Vermilionville.  
(from Taintor Bros. and Merrill 1848)

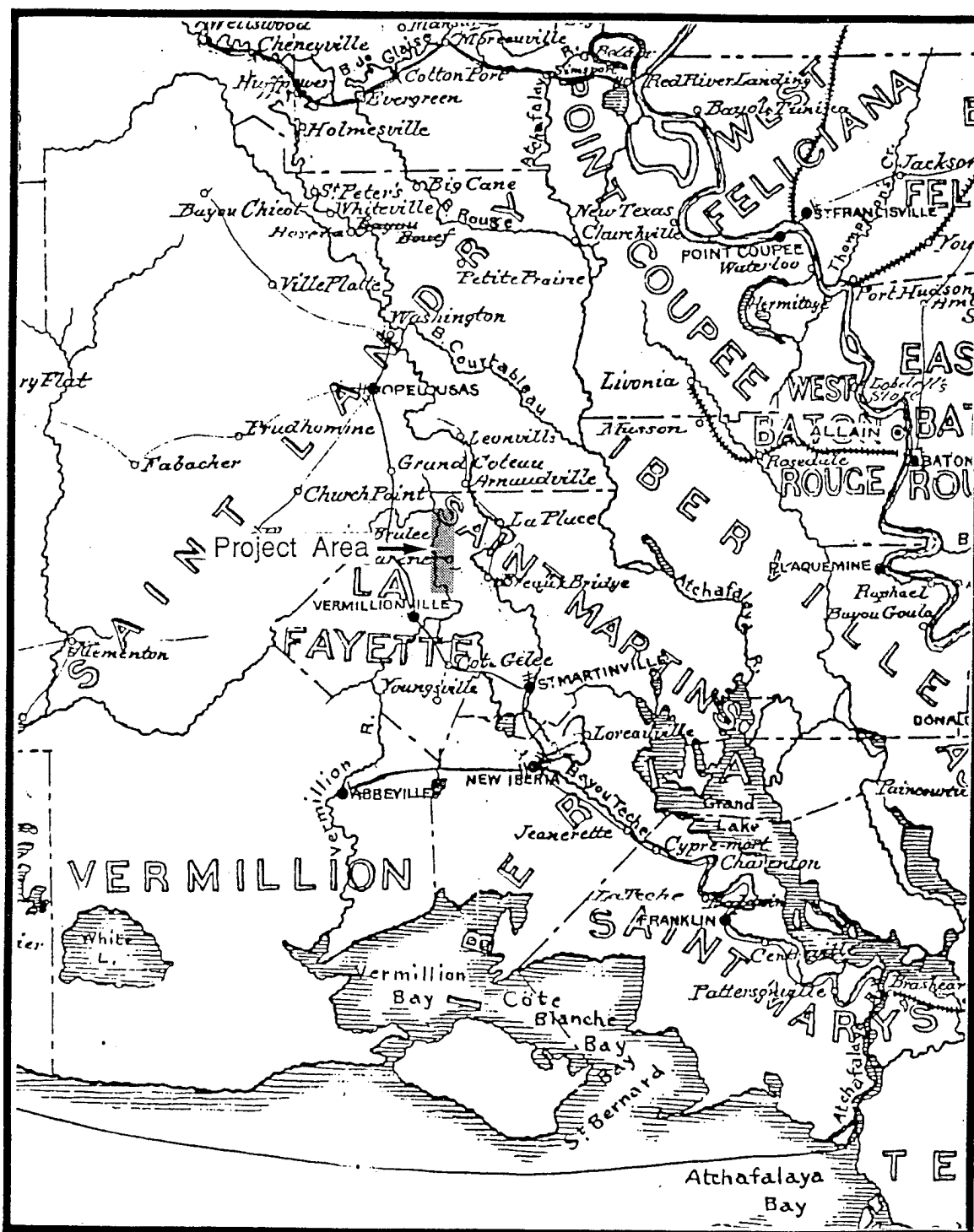


Figure 9. 1874 preliminary post route map of the State of Louisiana.  
(from Goodwin and Associates, Inc. 1985:Figure 30)

Racial and economic class relations within the area were quite fluid during the beginning of the period when the Attakapas District was a frontier region composed of small farms, vacheries, and slaveholdings. Slavery became increasingly oppressive as commercial and then industrial agriculture expanded into the area between the 1820s and the 1840s. Armed slave patrols began in the 1820s. Reacting to an abortive slave insurrection in 1840 and the continued raiding of livestock by impoverished drovers from the prairies, local political leaders within the Lafayette Parish Police Jury's jurisdiction enacted stringent slave regulations and conscripted all white males to serve on all-night armed patrols.

As the area's economy boomed in the 1850s and abolition became increasingly debated within the national political arena, these local political leaders, all members of the local propertied classes, established vigilante committees. These paramilitary "Societies of Mutual Protection" sought, in their words, "Law and Order."

Rustlers and abolitionists were brought to justice quickly, and various "undesirables" such as free persons of color and Socialist refugees from the revolutions of Europe soon experienced vigilante law and order. The largest paramilitary operation conducted by the vigilantes in Lafayette Parish occurred in 1859, at which time a number of victims were shot or beaten to death in a shootout near Duson. Subsequently, over 80 victims were convicted "by Judge Lynch" (*Barde 1981*).

### **Secession and Reconstruction**

Although Louisiana joined in the secessionist movement of the Southern states from the Union in 1861, sympathy for the Confederacy was politically divided within the project area. The unswerving support for the Southern cause by the propertied classes from Lafayette Parish and their Delegates to the Secession Convention prompted recruitment in the area for the 18th Louisiana regiment under the command of Alfred Mouton. After serving in the Battle of Shiloh in 1862 this regiment was reassigned to the Trans Mississippi District which included southwestern Louisiana. In April and again in October of 1863 Confederate forces engaged Union troops at Vermilionville and Bayou Bourbeau (Figure 10). Superior Union forces on both occasions drove the Confederates north (*Edmonds 1979*).

As with the vigilante committees prior to the war, many of the conscripts had been reluctant recruits who had literally been taken in chains to local induction centers by impressment units. During the first retreat of the rebel forces many recruits deserted into swamps, the prairies, and under floors in homes and barns. Impressment gangs returned to the area following the first Union withdrawal and unsuccessfully sought to arrest these men. During the second occupation of Vermilionville by Union forces, many of these deserters offered their services to Union officers as scouts. However, after being harassed by Confederate guerrillas, the Union army took numerous hostages in Vermilionville, and relations with the local population, including deserters, deteriorated rapidly.

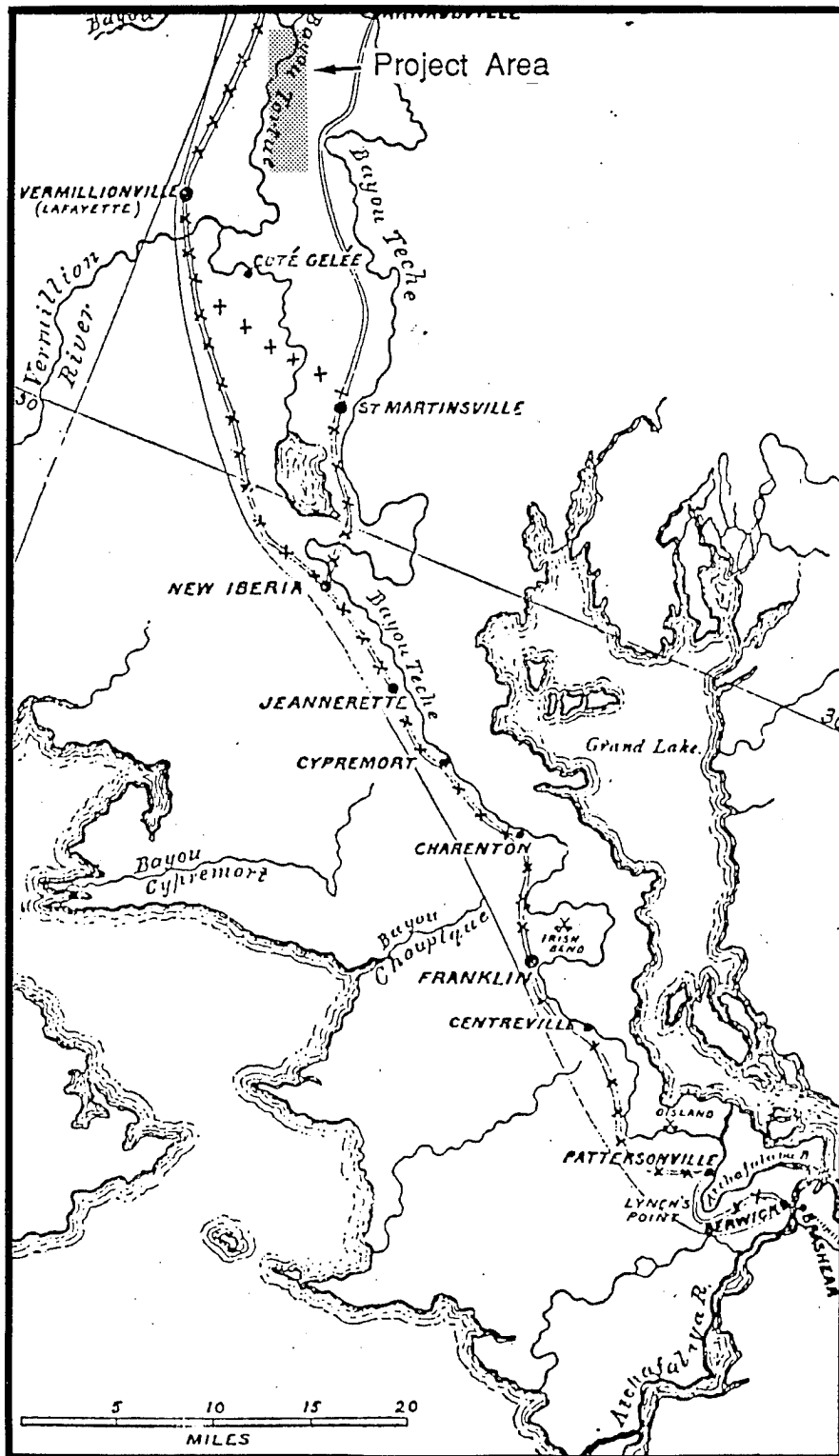


Figure 10. 1863 map of Union Army route in the project area.  
 (from Goodwin and Associates, Inc. 1985:Figure 24)



The repercussions of the ensuing hostilities on the commerce of the area devastated the Antebellum economy. By late 1863 the Union Army had captured New Orleans and Port Hudson, effectively closing trade on the Mississippi, Teche, and Vermilion Rivers respectively. By the spring of 1864 the project area was plagued by guerilla warfare between various factions, and Vermilionville filled with white stragglers and freedmen who had followed the Union forces, and with area soldiers who had again deserted after the Battle of Mansfield (*Edmonds 1979*).

With the anticipation of the Union advances during the war, Confederate forces and sympathizers had fled the area with large quantities of supplies, livestock and wagons, and burned all of the bridges along southwestern Louisiana's main public roads. When Union forces occupied Vermilionville on the second occasion, the army was determined to destroy all potential rebel supplies in the area. Thousands of head of cattle, miles of fences, most of the area's agricultural produce and many of the weather boards of homes were consumed or destroyed. By the end of 1868 over 20,000 acres of cropland in Lafayette Parish were idle. Rice production alone fell from 380,000 pounds in 1860 to only 184 pounds in 1876 (*Brasseaux 1992*).

The commercial disruption of the Civil War was followed by a financial crisis that dislocated property owners and prevented investment in capital and labor. An example of these economic repercussions can be seen in the devaluation of Louisiana farm land, which dropped in value from \$275 million in 1860 to \$110 million as late as 1890. The collapse of the regional market transportation network, a severe inflationary spiral in real estate, significant personal and community debt created by the onset of the Panic of 1873, and the demoralized reaction of local communities to the consequences of the conflict initiated a social disintegration throughout the region that led to years of violent racial relations and the eventual migration of many social classes.

The disintegration of the Southern economy reflected the persistence of a rural low-wage labor supply, the decentralization and dislocation of traditionally dispersed agricultural communities, and the disappearance of self sufficiency in basic foodstuffs as the localization of economic life became dependent on cotton monoculture and its associated financial structure. Settlement patterns shifted during this period towards a transitional restructuring in the organization of plantation and yeoman agriculture through experimentation in wage labor, semiautonomous sharecropping, and finally a secure tenure in the dispersed tenant system. This intensification of land use based on tenancy and the crop lien defined the opportunities and dictated the pace of economic life for the majority of whites and blacks until the initiation of the federal farm programs of the 1930s (*Wright 1986*).

A resumption of navigation along the Vermilion River following the Civil War temporarily increased steamboat traffic after 1871 as the monolithic culture of cotton production rebounded and the emergence of rural industry was stimulated by the slow reconstruction of the Southern economy. Locally, natural resources were exploited to produce salt, cotton, corn, beef, and cypress timber.

An influx of former slaves, young Cajuns, and Jewish and French Catholic refugees from the Franco Prussian War migrated into Vermilionville seeking employment in the few construction projects undertaken by the Agriculture and Mechanical Association to rebuild the shattered local transportation and distribution industries. The population of Vermilionville increased from 497 in 1860 to 806 by 1880.

Racial relations became strained in the Lafayette Parish area as the political incentives to maintain white supremacy were challenged by the ascendancy of Radical Republicans and the enfranchisement of the black population. Resentment over these changes created attitudes that gained strength among unreconstructed political leaders from the plantation belt and largely illiterate homeless whites; this led to the formation of paramilitary organizations such as the White League.

Routine terror and violence throughout Reconstruction by the White League, such as the eruption of race riots in Opelousas and St. Martinville in 1868 after the establishment of the First Reconstruction Act, were a reaction by these violent white groups to the establishment of democracy in the South. In July of 1874 alone, six blacks were lynched in Vermilionville by white mobs. These political campaigns of terror and violence eventually led to a series of group migrations by blacks out of these rural low income areas. Many migrated into Northern industrial areas where higher wages offered social and economic opportunities not realized in the South, even by whites, until after World War II (*Taylor 1974; Wright 1986*).

### **Rural and Commercial Expansion**

Louisiana's participation in the Compromise of 1877, which ended the Federal attempt to reconstruct the Southern social order, and the emergence of small indigenous industries throughout the South in the 1870s led to the resurgence of conservative coalitions that regained political authority in the 1880s. Hoping to join the nation's expanding industrial base by attracting domestic and foreign capital, this newly established Bourbon regime proclaimed a "New South" that tried to shift investment strategies away from traditionally dispersed populations dependent upon cotton monoculture.

The basis of this rural industrialization was the redirection of the Southern economy into non-agricultural wage labor employment that intensively exploited public lands, natural resources, and minimal wage levels. With low wages, cheap land, and minimal taxes provided by the economic participation and political support of conservative Bourbons, domestic industrialists arrived in the 1880s to capitalize on the situation. The expansion of Southern rural industry in Louisiana was stimulated by the arrival of the railroads. With this expansion came a population influx that would begin a dramatic realignment of the social, economic, and political institutions of the area (*Wright 1986*).

The completion of Morgan's Louisiana & Texas Railroad and Steamship Company railroad from New Orleans to Vermilionville in 1880 and the New Orleans and Texas railroad from Houston to Vermilionville in 1881 stimulated the area economy and integrated the regional

market transportation network into the national system for the first time. Other extensions of Morgan's national and regional railroad network during this period include lines to Opelousas and Baton Rouge across the Atchafalaya Basin. The Southern Pacific Railroad operated these lines by the 1890s (Figure 11).

Stimulated by the construction of Morgan's railroads, Vermilionville developed into a regional distribution and service center. In 1884, the town's name was officially changed to Lafayette. Aided by the location of the railroad's division headquarters; the establishment of trade and business associations, such as the Lafayette Improvement Association; the introduction of commercial telegraph and telephone services; and the progressive promotion of a water works, electrical power plant, and sewage treatment facilities by local political leaders, Lafayette became the commercial center of the region by the turn of the century (Figure 12).

Associated with the development of the regional market transportation network was the establishment of local financial institutions, such as the First National Bank and Lafayette Building Association, and urban cultural manifestations. Lafayette's population increased from 806 in 1880 to 3,314 in 1900 and doubled again by 1910 to 6,392. Theaters, restaurants, saloons, hotels, boarding houses, and the University of Southwestern Louisiana were constructed during this period. Many historic buildings from the era, such as the Gordon Hotel and the First National Bank, remain in the downtown area of Lafayette today (*Dismukes 1972*).

The construction of the railroads also stimulated the timber industry in the vicinity of the project area. Cypress stands along Bayou Tortue, Lake La Pointe, and the Atchafalaya Basin provided cross ties, boxcars, depots, and company housing for the railroads. Cooperage and furniture manufactures and building products companies were established in Lafayette to meet the growing demand of real estate development. The discovery of petroleum in Anse La Butte and Cankton and the resultant petroleum industry and related service industries helped local homesteaders supplement their income as wage laborers.

The arrival of these rural industries based on timber and petroleum initiated a slow migration towards urbanization in the area. By the 1920s Lafayette had become a city with hard surfaced roads, an airport, a community library, and public parks. State highway construction connected Lafayette with the national network and telephone lines reached to both coasts for the first time. The flood of 1927 inundated 15,000 acres in the parish and temporarily increased the city's population by 20,000 displaced refugees.

The Depression adversely impacted every segment of local society. During the 1930s 40% of local manufacturing establishments were closed, 20% of the local work force was laid off, retail sales declined 48%, the value of farm property fell 35%, and farm income fell 65%. Only the intervention of New Deal federal funds prevented a general collapse of the local economy. Although these funds were never evenly dispersed, the agriculture programs provided rural electrification that accelerated mechanization, enabling area farmers to develop large dairy herds and shift away from financial dependency on cotton towards a more diversified crop production scheme including sweet potatoes and truck farming (*Brasseaux 1992*).

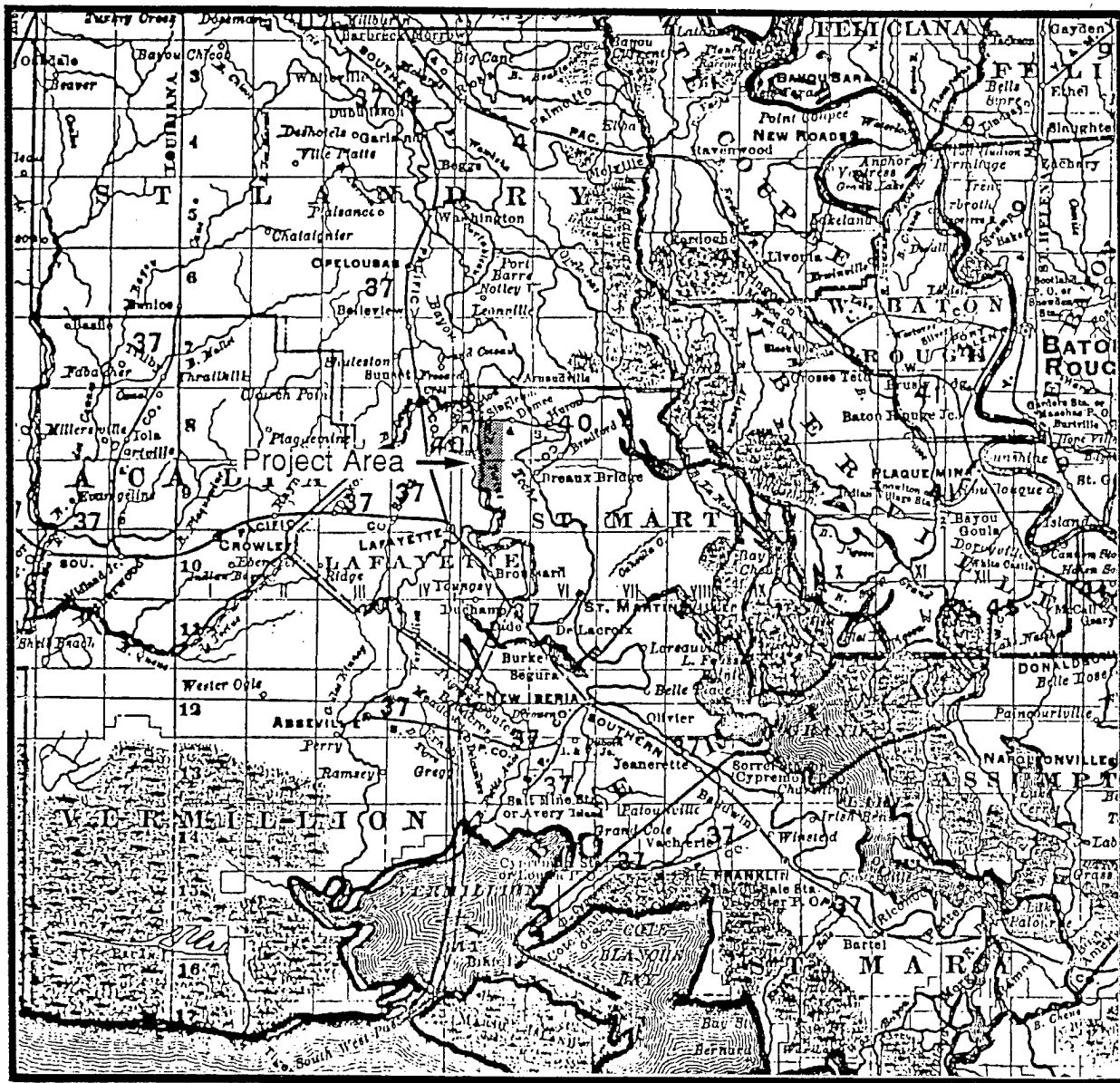


Figure 11. 1895 Louisiana railroads map.  
 (from Goodwin and Associates, Inc. 1985:Figure 38)

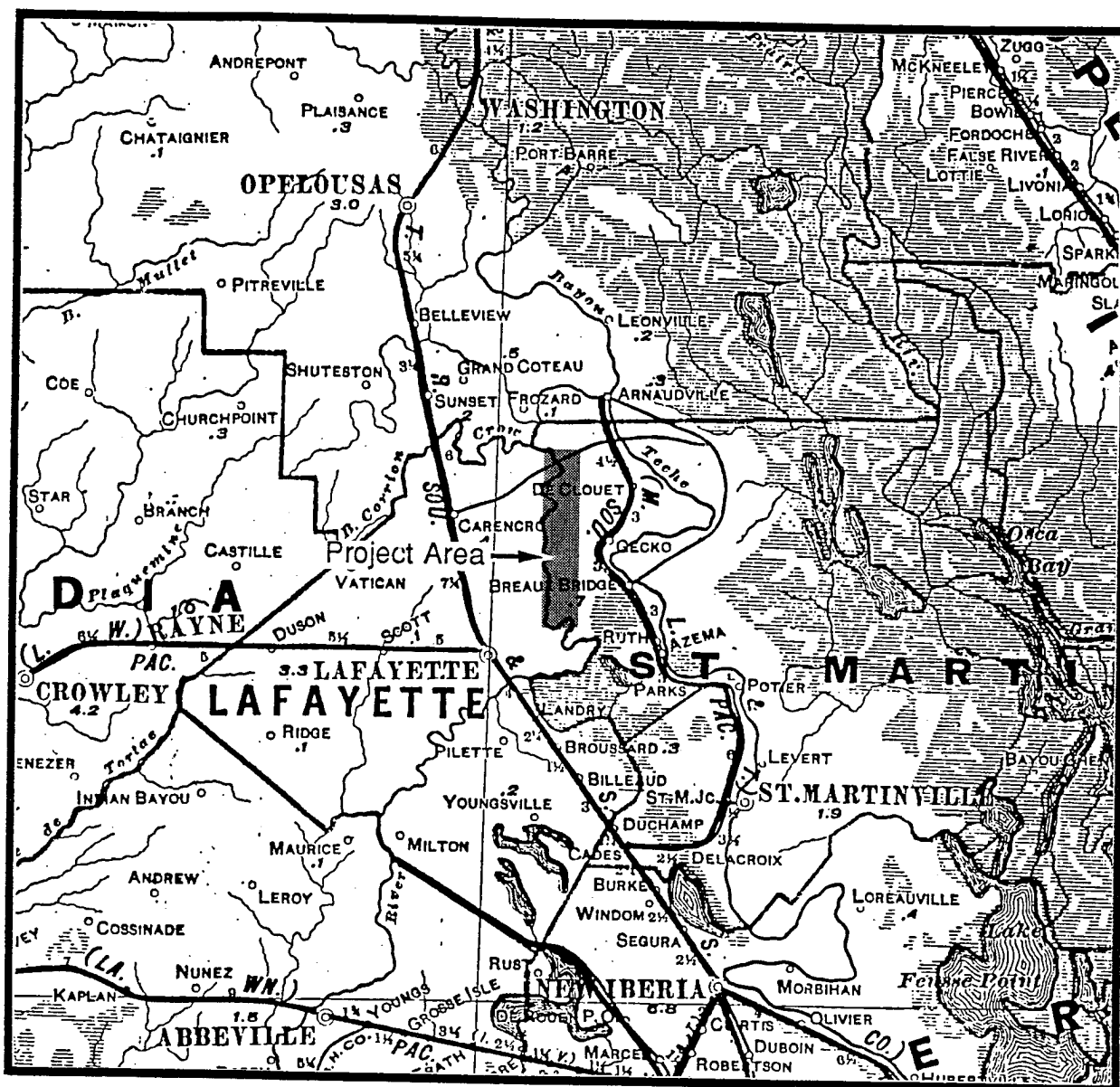


Figure 12. Portion of a 1905 map of the state of Louisiana.  
 (from Goodwin and Associates, Inc. 1985:Figure 40)

## CHAPTER SIX

### LAND USE HISTORY AND SUCCESSION

As part of the investigations, a search for archival and documentary sources that relate directly to ownership and land use in the project area and immediately adjacent properties was conducted. The purpose of this research was to determine the potential range of information and documentation available for evaluating any historic occupations encountered. The original survey plat map and land claim records were reviewed at the Lafayette Clerk of Court's office. The Archives studied at the Lafayette Parish Courthouse included conveyance records, deed books, tax records, and successions, while the census records were viewed in the Lafayette Parish Public Library and the University of Southwestern Louisiana. Figures 13 and 14 depict the survey areas in relation to the 1957 composite of previous state land office plats (*Lafayette Parish, Clerk of Court*); the owners listed on these maps, as well as previous and subsequent land holders are discussed below by survey area.

#### Area B

Archival sources revealed that Laurent Ducrest acquired Section 111, Township 9 South, Range 5 East through a Spanish land grant on September 6, 1776 (*American State Papers* 2:802). Although he acquired several other Spanish land grants in the immediate vicinity of the project area, the location of his residence is unknown. In 1807 Laurent Ducrest bequeathed an estate appraised at \$7,369, which included in the inventory seven slaves, 312 head of range cattle and 15 wild horses (*Conrad* 1993).

In 1785 Pierre Dugas came into possession of this land (refer to Figure 13) from a concession of occupancy from the Spanish government and from a purchase from Laurent Ducrest (*Old Board of Land Commissioners Claim # 7*). In the last Spanish Census of 1803, however, Pierre Dugas is listed as residing on 26 arpents in the area along the Vermilion River called Grande Prairie. He raised cattle on open range and during the American Revolution supplied the Spanish expeditions against Baton Rouge and Mobile with beef (*Usner* 1992).



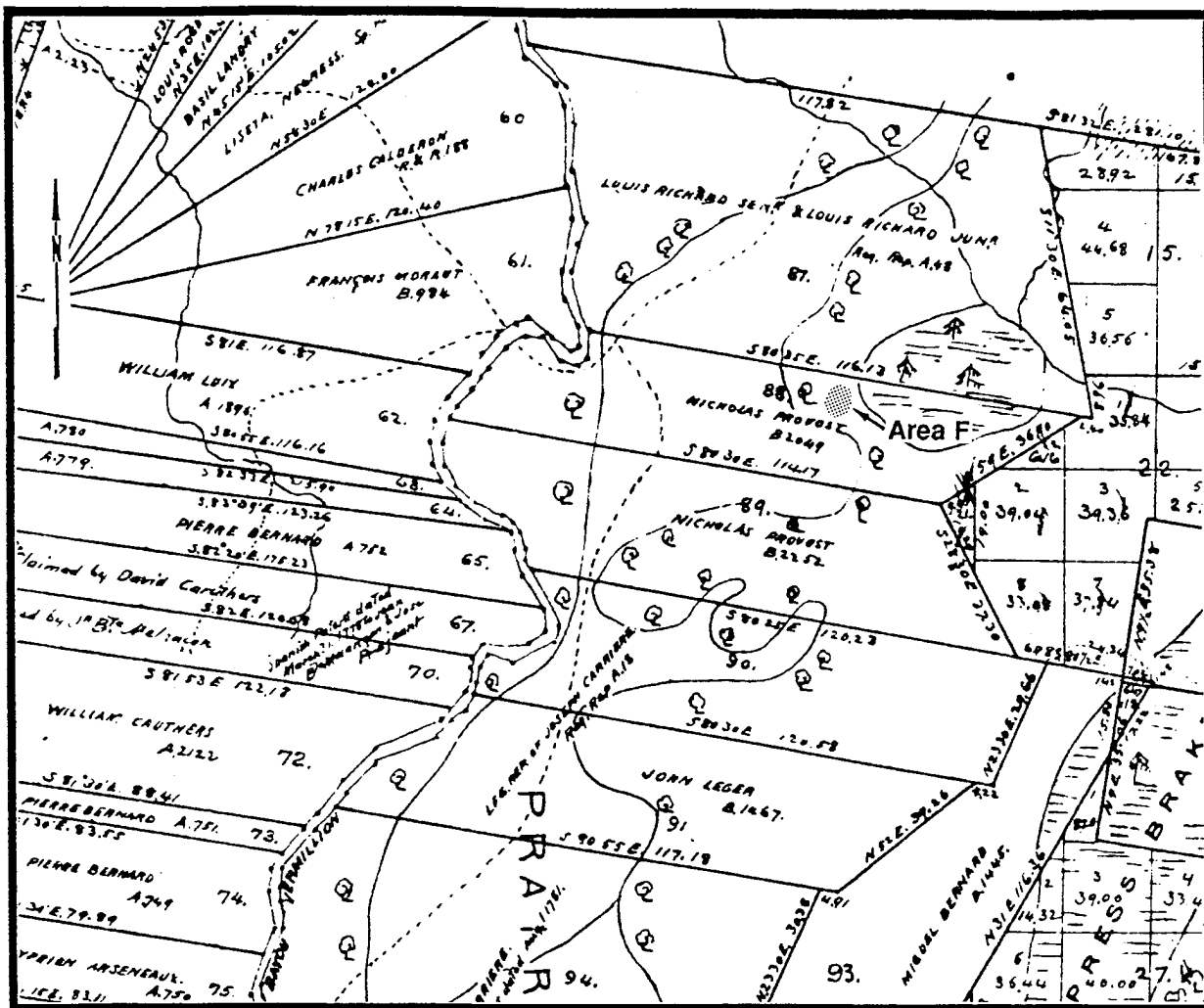


Figure 14. Township 8 South, Range 5 East, 1957 composite of previous state land office plats. (from *Lafayette Parish, Clerk of Court*)

Although Paulin Arseneaux had acquired the property by 1841, the exact date of the acquisition is not known. However in 1841 Paulin Arseneaux mortgaged the property and three slaves to the Union Bank of Louisiana (*Lafayette Parish, Clerk of Court, Act # 125*). Paulin Arseneaux lost the property to the Union Bank in 1850. He would become a leader of the White League during Reconstruction and signed a declaration of principles on August 15, 1874 "to unit in one solid and compact opposition to radical rule and Negro supremacy" (*Griffin 1974*).

In 1850 Dame Elizabeth Dugas and Gabriel Dubeau purchased the property from the Union Bank of Louisiana. These sales all include the notation that the date is in the 75th year of American Independence. Such notations would cease following the Civil War (*Lafayette Parish, Clerk of Court, Act # 1478*). In 1866 Joseph Dugas acquired the property at Grand Prairie in United States currency (*Lafayette Parish, Clerk of Court, Act # 4607*).

In 1870 Charles O. Olivier acquired the property and bequeathed it to Jean E. Gentil the same year (*Lafayette Parish, Clerk of Court, Acts # 5404 and 5493*). In 1890 Gentil Olivier



acquired the property through a Succession (*Lafayette Parish, Clerk of Court, Succession # 17881*).

In 1927 Charles D. Caffery acquired the property. He was Mayor of Lafayette, founder of the Lafayette Improvement Association and the Peoples Cotton Oil Company. In 1928 Charles' son Jefferson Caffery acquired the property. Jefferson Caffery joined the United States State Department after graduating from Tulane. He was assigned to Venezuela, Sweden, and Persia and headed the American Delegation to the Conference in London in 1918. He served as President Wilson's charge de affairs at the Paris Peace Conference. He became Ambassador to Brazil, Spain, France, Egypt, and finally to the United Nations (*Griffin 1974*).

From the 1920s to the present, the land changed hands several times. A portion of the former estate was donated to the city as a park, although this portion was not included in the survey area.

## Areas C and D

Archival sources reveal that Joseph Alexandre De Clouet acquired Section 43, Township 9 South, Range 5 East through an American land claim based on a Spanish order of survey in favor of his wife Louise de Favrot (*American State Papers 2:830*). Archival sources also reveal the heirs of Louise de Favrot acquired Section 44, Township 9 South, Range 5 East on the basis of a Spanish order of survey issued in favor of Louise de Favrot on May 17, 1790 (*American State Papers 4:507*).

Sections 44 and 43 (refer to Figure 13), together with several adjoining tracts obtained by the De Clouet's formed a large estate that stretched from the Bayou Vermilion to Bayou Teche. Louise de Favrot was from Baton Rouge and married J. A. De Clouet in 1761 in New Orleans.

J. A. De Clouet was a French military officer who arrived in Louisiana in 1758. He served in the Spanish colonial administration as Commandant of the Arkansas Post and subsequently as Commandant of the Attakapas and Opelousas posts between 1774 and 1786. During the American Revolution he raised and led a regiment from the Attakapas District in the expeditions against Fort Bute at Manchac and Baton Rouge (*Conrad 1992*).

Alexandre De Clouet, Jr. acquired the property following his father's death in 1789. He also served with the Spanish colonial militia during the American Revolution. He raised a regiment from the Attakapas District during the War of 1812 and served as a Colonel under General Andrew Jackson in the Battle of New Orleans. He died in 1816 leaving an estate valued at \$40,877. Inventoried were 46 slaves, 730 head of cattle, 30 oxen, 10 horses, 200 sheep, 20,000 pounds of cotton, various wagons and carts, saws, farm tools, sugar boilers, furniture, and one scow or flatboat (*St. Martinville Parish, Clerk of Court, Succession # 227*).

Catiche and Arthemise De Clouet, daughters of the deceased, purchased the estate during the Succession sale for \$8,100. Arthemise and her husband, Francois Benoit de St. Clair, purchased most of the inventory in the Succession sale of the estate. In 1817 Francois purchased Catiche's interest in the estate for \$4,050. The legal description states that the tract consisted of 75 arpents of land along Bayou Vermilion by a depth to Bayou Teche (*St. Martin Parish, Clerk of Court, Book 1A, Old Acts, # 3198*). Arthemise and Benoit de St. Clair lived on and operated the estate until after the Civil War. The estate is now known as the St. Clair Plantation and is still a very large agricultural operation.

On October 28, 1865, following the economic devastation of the Civil War, Benoit de St. Clair borrowed \$7,500 from his cousin Alexandre De Clouet. In 1867 B. de St. Clair mortgaged the property to Jules S. Broussard and Fermin Guidry. On October 21, 1869 Alexandre De Clouet filed suit against B. St. Clair and obtained the property in a Judgement of Possession (*Lafayette Parish, Clerk of Court, Civil Suit # 3041, Conveyance Act # 14960*). Inventoried in the Judgement of Possession were a sugar mill, a corn mill, three Negro houses, a small kitchen, a blacksmith shop, a carriage house, and two corn cribs.

Alexandre De Clouet served in the Louisiana House of Representatives and Senate. He was the Whig candidate for Governor in 1849, a member of the Secession Convention and the Confederate Congress, and was an active Democratic redeemer during Reconstruction. He was an active promoter of the New Orleans, Opelousas, and Great Western Railroad that reached Lafayette in 1880 (*Conrad 1992*).

In 1886 Alexandre De Clouet bequeathed to his children, Paul and Blanche De Clouet, St. Clair and Magenta Plantations. The estate was appraised at \$14,000 (*Lafayette Parish, Clerk of Court, Donation Book # 2, # 15013*). Paul De Clouet served in the Confederate forces and represented Lafayette Parish in the Louisiana House of Representatives. John C. and Bella Nickerson purchased the property in 1910. In 1950 Bella Nickerson Chappuis inherited the property. St. Clair Plantation remains a large agricultural enterprise (*Richard Chappuis, personal communication 1994*).

## Area F

Archival sources reveal that Nicolas Prevost acquired Sections 88 and 89 (refer to Figure 14), Township 8 South, Range 5 East, in the area called Mauvais Prairie through a Spanish land grant on September 19, 1781 (*American State Papers var. 2:860*). Joseph Latiolais acquired this property on January 13, 1813 for \$1,500 (*St. Martin Parish, Clerk of Court, Bk. 24:193*). Joseph Latiolais was a prominent attorney who speculated in land throughout the Attakapas and Opelousas Parishes. Although no land purchase is documented in the conveyance records, this property is appraised as part of the inventory listed in the Succession of Pierre Arseneaux in 1814.

Pierre Arseneaux, known as Gabriel in the poem *Evangeline*, was one of the seven Acadian Chiefs to arrive in the Attakapas District with Beausoliel Broussard in 1765. He moved

his clan to the Beaubassin area, began raising cattle throughout the Mauvais Prairie, and acquired several tracts along the Bayou Vermilion in the 1780s. His estate contained 27 slaves, 698 cattle, 102 horses, 30 milk cows and 30 sheep and was valued at \$30,380 (*St. Martin Parish, Clerk of Court, Succession # 164*). William Darby distinguished the prominence of the Arseneaux family on his map of 1816 (Figure 15).

J. Zenon Broussard and his wife Cleoire Savoie obtained the property from the Arseneaux heirs sometime in the 1830s. Zenon Broussard was a planter of sugar cane who prospered quite well during the Antebellum years. In 1850 he owned 37 slaves, and by 1860 he owned 56 slaves and was one of 12 large plantation owners in the Parish (*Menn 1964*).

Z. Broussard, alias "six-doigts," obtained an unsavory reputation during the Civil War by dealing with anyone for a fee. After convincing several Carencro planters that the Union forces had evacuated Vermilionville, he agreed to smuggle their 32 bales of cotton to market. The Union soldiers immediately confiscated the cargo for their temporary barricade works when Broussard's teamsters were passing through town. However, by the next morning when the Union troops were leaving the area, the cotton had disappeared. While Broussard claimed the Union forces had taken the cotton with them, years later in the records of the American Claims Commission, the Union Commander and several local citizens confirmed they had not (*Edmonds 1979*).

Frank E. and Mercedes Broussard, grandchildren of Zenon, inherited the property in 1882, giving usufruct to their mother Elia Martin (*Lafayette Parish, Clerk of Court, Conveyance Act # 17556*). In 1908 Frank and Mercedes partitioned the property after a thorough inventory was taken. The property is described as a plantation consisting of 647 arpents. The inventory also included a tenant list, the number of corn cribs associated with tenant housing, and a notation that the former cotton gin was now divided into corn cribs and stables, which were allocated among the tenants. The tenant list included John Daniel, Jr.; Joe Mouton, 1 crib; Cashon Mouton; Noah Brown; Numa Park, 1 crib; Antoine Smith; Philibert Babineaux; Cadet Senegal, 1 Crib; and John Arseneaux (*Lafayette Parish, Clerk of Court, Act # 37751*).

In 1910 the property was sold to Ophelia Broussard, who in turn sold a portion of the property including the project area to Francois P. Richard in 1911 (*Lafayette Parish, Clerk of Court, Acts # 39686 and # 41553*). Francois Richard farmed the land until his death in 1918. Theosa Richard, Francois' wife, continued to operate the farm until after World War II, when her children inherited the property (*Lafayette Parish, Clerk of Court, Acts # 52872 and # 377430*). Today the area in which the property is located is still a rural and agricultural area of Lafayette Parish.



**Figure 15. Darby's 1816 map of the project area showing the "Settlement of the Arseneaux family."** (from *Goodwin and Associates, Inc. 1985:Figure 7*)

## **CHAPTER SEVEN**

### **PROJECT PROCEDURES AND FINDINGS**

#### **Procedures**

In November of 1994, PTA conducted a cultural resources survey of four disposal areas along the Vermilion River in Lafayette Parish, Louisiana (Figures 16 and 17). None of the areas had been previously surveyed.

The project was initiated with background and archival research, the results of which have been presented in the previous chapters. During fieldwork, each area was approached individually and the procedures tailored to the conditions, configuration, and features present. In general, work began at each study area with a general reconnaissance to identify conditions and examine the terrain. If surface conditions were suitable, surface survey was conducted. Subsurface testing involved the excavation of systematic and judgmental shovel tests within each study area. Systematic subsurface testing consisted of 30cm by 30cm shovel tests excavated to sterile subsoils or a minimum depth of 50cm. Shovel tests were placed along transects spaced 20m apart with a shovel test interval of 30m or less in an offset pattern.

Additionally, a backhoe trench was excavated in each area to provide a representative profile and to evaluate the potential for deeply buried archeological horizons. In the descriptions of the stratigraphy, the depth measurements are taken at the approximate center of the profile cut. Strata are numbered consecutively; genetic relationships, if any, among the stratigraphic units are indicated by horizon identifications. When reasonable, soils are identified by type. Most seem within the allowable range of variation of mapping found in the parish soil manuals, or included soils thereof. Finally, the horizon identifications which correlate with those soil mappings have been updated to take into account current usage. Eluviated horizons are now symbolized by E rather than A2; transitional horizons formerly designated B3 are currently symbolized by BC. Other differences are summarized by Foss et al. (1985) and Soil Survey Staff (1988).

The location of all subsurface units were plotted on a site map which also displays pertinent remains and features. Contours on the maps were approximated from quadrangles.

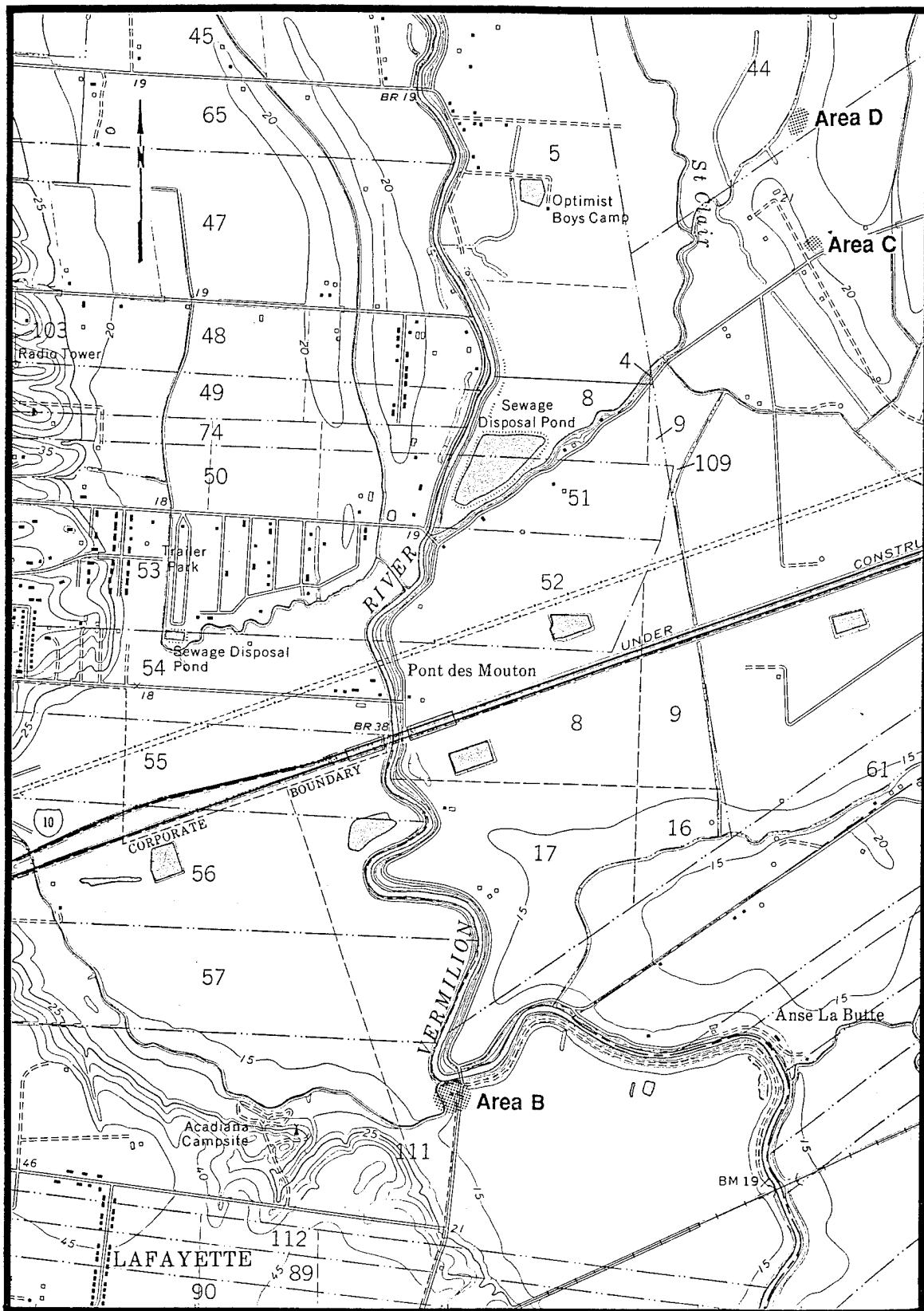


Figure 16. Areas B, C and D, Breaux Bridge Quadrangle.

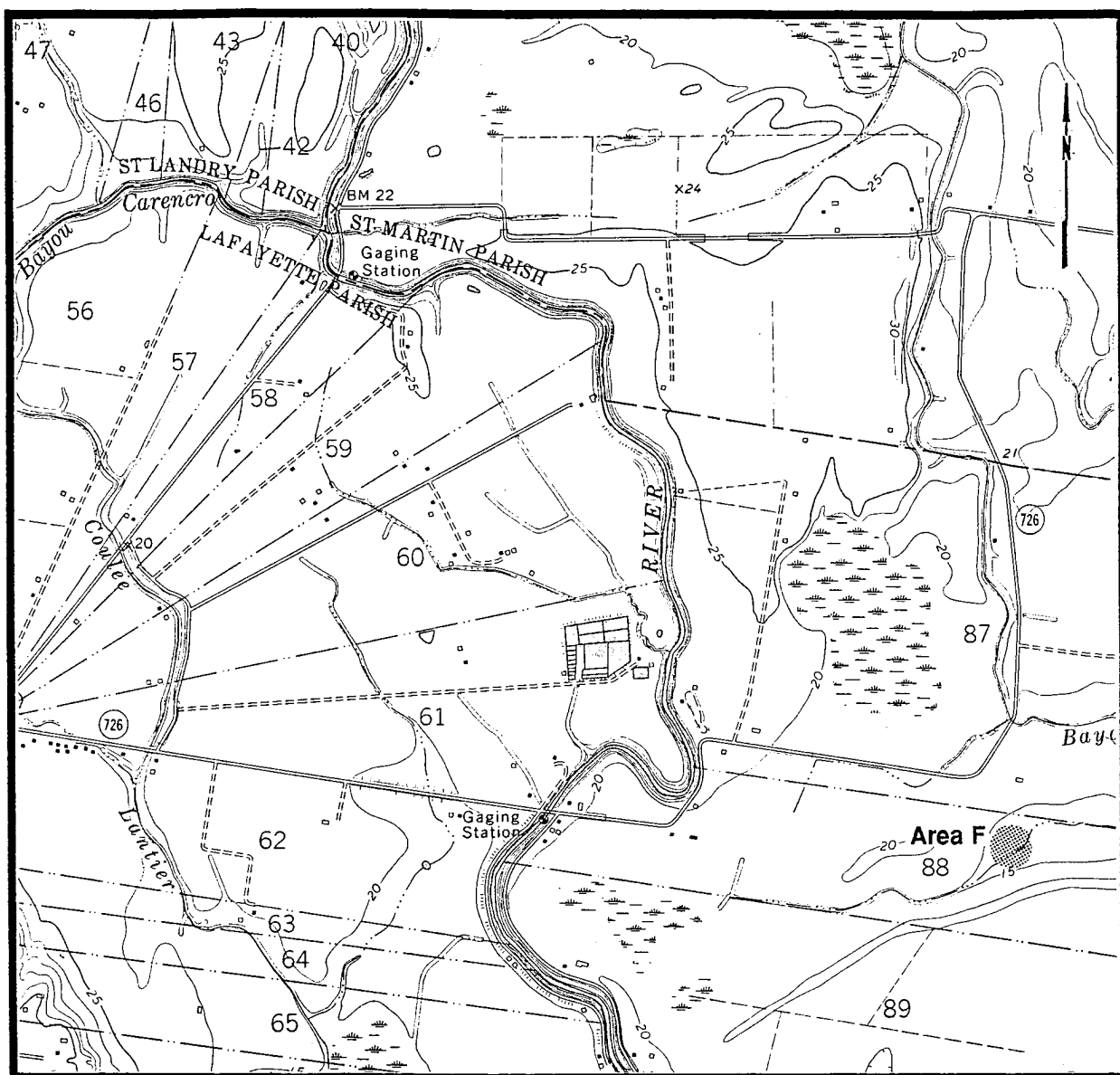


Figure 17. Area F, Breaux Bridge Quadrangle.

## Study Areas

### Area B

**Setting:** Area B is situated south of Vermilion River at its confluence with a tributary, Francois Coulee. The area encompasses an abandoned homesite that has been utilized recently as an unofficial dump site. Numerous truck and automobile parts are scattered across the entire parcel of land. Corrugated tin roofing, 55-gallon drums, wash tubs, tires, boards, bottles, glass, appliances, shingles, television sets, fire extinguishers, chairs, concrete, and brick are among the debris that was observed.

**Environment:** Area B is situated on a broad, flat landform overlooking the Vermilion River. There is a very sharp drop-off to the waters of the Vermilion River and the tributary. Near the confluence of the tributary of the Vermilion River there is a large pile of earth that is either spoil, a result of disturbance, or an erosional remnant. A careful examination of this feature revealed no evidence of cultural material.

The proposed disposal area is overgrown with tall weeds, ragweed, milkweed, and grasses. Numerous trees, including Chinese tallow, beech, pecan, oak, and hackberry, are present with the larger trees along the river and its tributary.

**Disturbance:** The only observed disturbance is use of the area as a dump.

**Fieldwork:** Investigations began by making a surface reconnaissance of the project area, followed by the excavation of shovel tests, the mapping of a historic homesite located on the property, and the excavation of a backhoe trench.

As noted previously, the area is the site of a homestead that has been abandoned, with the area now being used as a dump. Figure 18 shows the area with the house, barn, and sheds and depicts a small portion of the debris that literally covers the area. No effort was made to map most of the junk that is piled over the site.

The main structure, still standing (Figure 19), is a wood frame house with concrete pillar foundations, clapboard siding, and corrugated tin roofing. The windows are double pane, wood frame with screens. Round nails were used in the construction of the house, which also has electricity and indoor plumbing. The eight-foot ceilings are made of wood. The walls are wood planks. There is a sink in the kitchen, but no bathroom. The house has a gabled roof with a porch at the entrance; a gabled roof covers the porch as well. A brick chimney leads from a flue in the kitchen. This bungalow-style construction was popular between 1930 and 1950.

An addition on the western side of the house does not have the clapboard siding. Rather, it is covered with what looks like particle board. There is a side entrance on the south side of the addition.

Debris at this homesite extends to the west all the way to the Francois Coulee. Running along the bank of the tributary is a large animal pen constructed with boards, corrugated metal, and hog wire. Inside the pen are several sheds and a chicken coop that are all in a state of collapse.

There is an outbuilding southwest of the house which appears to have been a small stable or barn (Figure 20). The outbuilding has a tin gabled roof and is of wood frame construction with round nails. These features are similar to the main structure, and both appear to have been built around the same time. There is a wooden partition in the center of the barn structure. Only one of the front doors remains and it is hinged. The front and side of the structure were covered with asphalt roofing shingles, many of which remain.



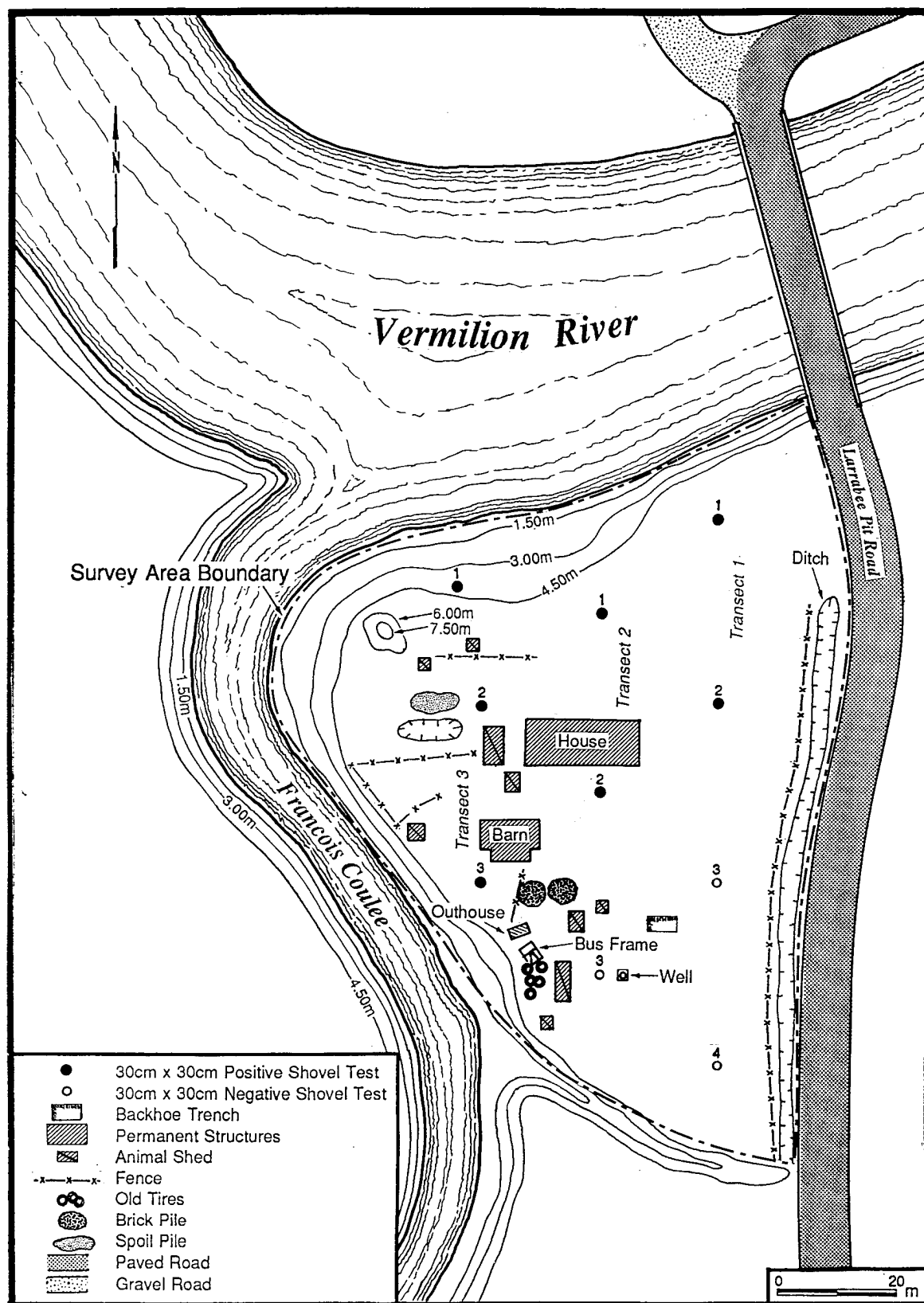


Figure 18. Sketch map of Area B.



**Figure 19. Photograph of the south side of house.**



**Figure 20. Photograph of the barn southwest of house.**

The inside of the barn is filled with more debris, including two sofas, plastic bags filled with bottles and a car seat. The barn was wired for electricity. South of the barn is a standing frame outhouse building (Figure 21).



**Figure 21. Photograph of the outhouse.**

West of the barn are three wooden animal sheds. There is also the frame of a bus. In the same area there are two large piles of brick and concrete. Many of the bricks are still mortared together. They have the appearance of having been dumped there, as opposed to being the remains of a collapsed structure.

Excavations included the placement of 10 shovel tests, located along three transects spaced at 20m intervals. Shovel tests were spaced at 30m intervals along each transect. Although seven of the shovel tests were positive, all artifacts were recent historic materials.

related either to the occupation of the homestead or to the presence of the dump. The greatest depth at which artifacts were recovered was 45cm in shovel test 2, transect 3. Items recovered from this test included plastic and paper from 35 to 45cm below surface. No finds, either from the shovel tests or from surface observations, were of sufficient antiquity to suggest the structure or artifacts related to it are of significance.

**Geomorphology/Stratigraphy:** This survey tract has been affected by a complex series of events which reflect a variety of processes. The tract is located near the suture of the upper surface of the Prairie Formation with the Lower Mississippi Valley Plain in an area mapped as possessing Holocene-age backswamp and point bar deposits (*Waterways Experiment Station, Corps of Engineers 1982*). Earlier, a Pleistocene-age channel seems to have traversed the site, but has since filled in with backswamp and point bar deposits. The Vermilion River, an abandoned Teche distributary, is also adjacent. Maps of the soil association for this site suggest the presence of the Sharkey-Baldwin-Iberia association (*USDA 1977*). However, the backhoe trench and shovel pits exhibit profiles typical of Gallion soils. These soils, which are inclusions within the larger association, are believed to represent Red River deposits. The Red River occupied the Teche channel after it was abandoned by the Teche-Mississippi, until its diversion through the Evergreen Gap. Given these considerations, it would be highly unlikely that any archeological material recovered from the Gallion soil of this survey tract would antedate the abandonment of the Teche by the Mississippi at about 4700 B.P.

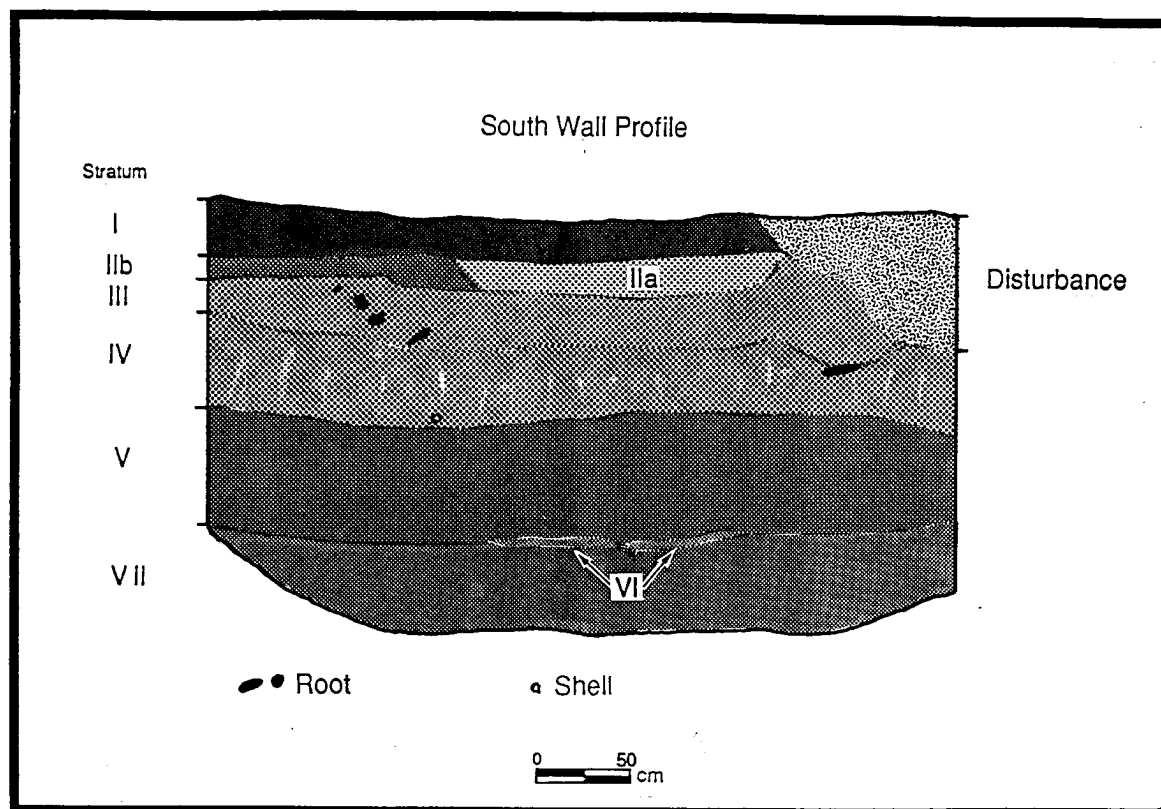
One backhoe trench was excavated in the southeast portion of the study area. Soils appear to be Gallion silt loam. Figure 22 illustrates the south wall profile; the identified strata are described below.

**Stratum I** (0-22cm) is an Ap horizon of very dark brown (10YR 3/2) silt loam; lower boundary is clear and smooth. *Rangia* (road fill) and recent historic artifacts are evident at the eastern end of the cut, while at the western end of the trench Stratum I is interrupted by a large disturbance of unknown origin filled with brown (10YR 4/3) silt loam.

**Stratum IIa and IIb** (22-41cm): Stratum IIa is a finely laminated Bt1 of strong brown (7.5YR 5/6) and reddish yellow (7.5YR 6/6) very fine sandy loam; lower boundary is clear and smooth. Stratum IIb is a Bt1(?) or EB horizon of yellowish brown (10YR 4/4) silt loam with a few fine black (10YR 2/1) mottles; lower boundary is clear and smooth.

**Stratum III** (41-66cm) is a Bt2 horizon of yellowish red (5YR 5/6) silt loam, faintly mottled; lower boundary is clear and smooth.

**Stratum IV** (66-103cm) is a BC horizon of strong brown (7.5YR 5/6) very fine sandy loam with reddish yellow (7.5YR 7/6) vertical streaks; lower boundary is abrupt and smooth.



**Figure 22. Backhoe trench profile, Area B.**

**Stratum V** (103-168cm) is diagnosed as 2BC; it consists of reddish brown (5YR 4/3-4) clay with a few fine black stains; the lower boundary is abrupt and smooth.

**Stratum VI** (168-173cm) is tentatively diagnosed as 2C; it consists of dark reddish brown (5YR 2.5/2) clay; lower boundary is abrupt and smooth.

**Stratum VII** (173-217cm) is diagnosed as 2Cg; it consists of dark grayish brown (2.5Y-10YR 4/2) clay with dark yellowish brown (10YR 4/6) mottles and black stains as well as black concretions surrounded by reddish stains; the lower boundary was not observed.

Gallion silt loam is mapped in this area (USDA 1977). Gallion soils are believed to be derived from and developed in Red River sediments, and are common along the Vermilion's natural levees. The agreement of this profile with the typical profile (USDA 1977) is good, although strata V and VI are not described and might be subsumed under strata IV and VII, respectively. Stratum IIb may reflect further influence of the historic impact seen immediately above it in the Ap, where *Rangia* shell and historic trash are incorporated into the matrix.

**Evaluation:** The structure and associated outbuildings have no architectural integrity or associations with significant events or persons. They are ineligible for listing on the National Register of Historic Places (NRHP). However, the project engineer has commented that the abandoned structure and outbuildings will not be impacted.

No archeological deposits associated with an intact cultural resource of potential NRHP eligibility were identified. Historic artifacts were recovered, but all appear to be recent discard. It is our opinion that the proposed activities will have no effect on cultural resources and no further work is recommended in Area B.

### Area C

**Setting:** Area C is located in an abandoned corral (Figure 23). Bayou St. Clair is approximately 400m to the west and an unnamed rank 1 tributary is situated approximately 400m to the north. This is the same tributary of Bayou St. Clair that is adjacent to Area D (below). The area is surrounded by cane fields: to the west, the field is mature, and to the east, the cane is immature.

The location is encircled by a metal pipe fence with some metal cable; the posts are approximately 2.5m apart. Several cross fences run east-west across the enclosure; most are constructed of the same metal pipe and cable and have a gate. However, the southernmost cross fence, which is approximately 180m north of the blacktop, is constructed of wooden posts and six-inch hog wire; there are no gates on this fence, but there are gaps on either end between the cross fence and the encircling fence.

**Environment:** The fence line has numerous trees growing along its edge, most of which are Chinese tallow trees, although some oaks are present (Figure 24). On the west side, between the fence and cane field, there are numerous old mature oaks and pecan trees. Within the fenced area, the vegetation consists of small grasses, weeds, clover, thistle, swamp cabbage, and wild flowers. There is very little surface visibility.

**Disturbance:** Disturbance to the area appears minimal and is probably all associated with agricultural and ranching activity. The area has been disced and plowed and was possibly planted in clover in the past. There is an abandoned dirt road west of fenced area, which shows on the quadrangle map as leading to houses. All of these houses have been razed and are outside the project area. However, the large oaks and pecan trees, as well as some power poles, mark their former locations.

**Fieldwork:** The project area was investigated with three survey transects spaced at 20m intervals with shovel tests excavated 30cm apart. A total of 11 30cm by 30cm shovel tests were excavated; none produced any cultural remains. One 50cm by 50cm shovel test was also excavated to investigate a seemingly darker soil horizon in one of the smaller shovel tests. In addition, the area of the immature cane field east of the corral fence exhibited excellent surface visibility and was carefully inspected for artifacts. No material was recovered there either.

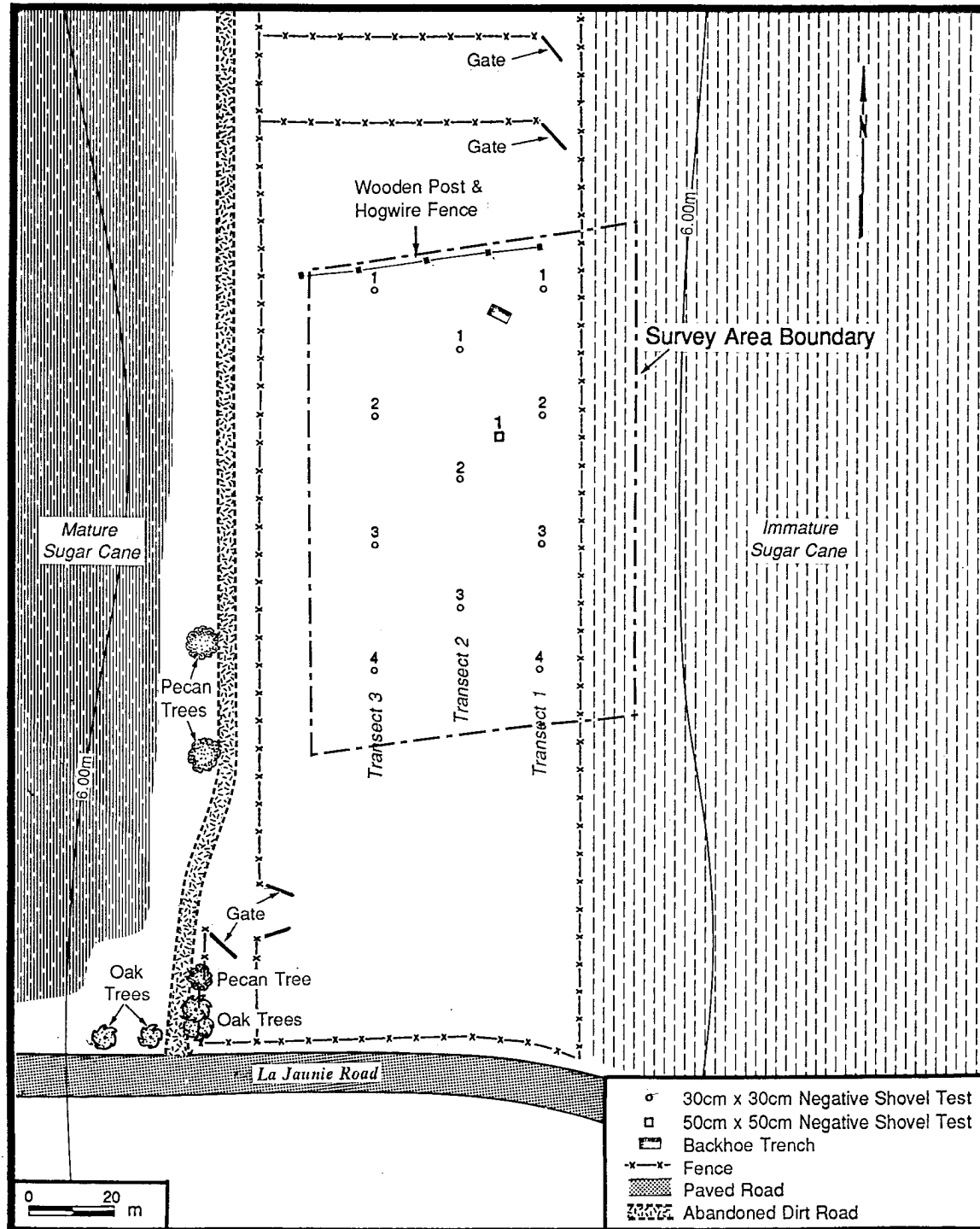
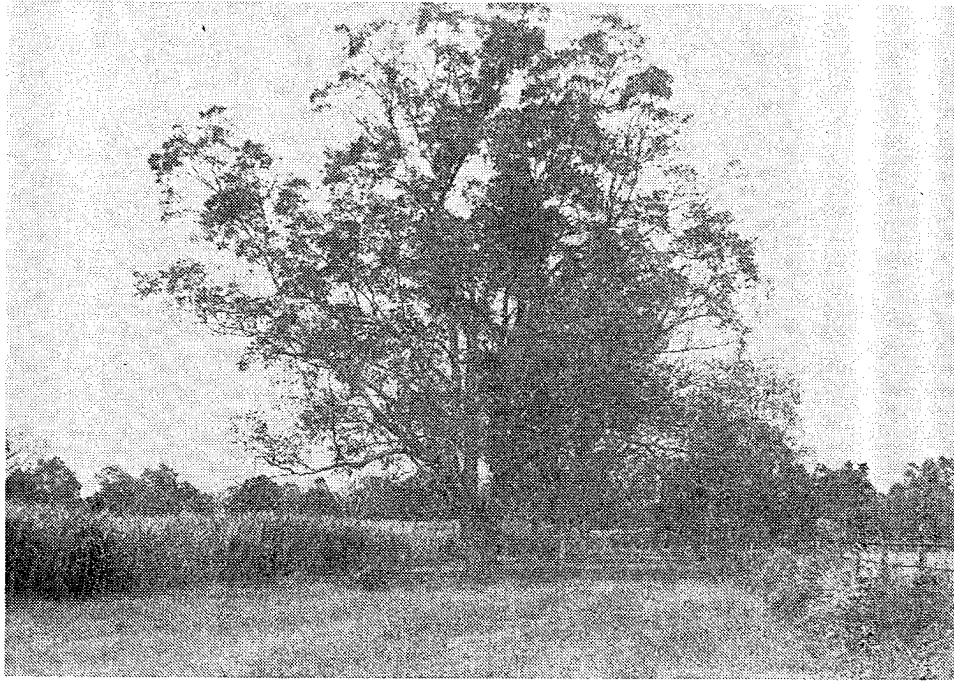


Figure 23. Sketch map of Area C.





**Figure 24.** Photograph of trees and cane field in vicinity of Area C.

**Geomorphology/Stratigraphy:** The landscape features of survey Area C are considerably simpler than those seen in Area B. It is situated on the Lower Prairie surface just east of Bayou St. Clair. This part of the Prairie Formation is covered with a loessal blanket, which may be up to 20 feet thick (*USDA 1977*). This area is considered to be within the Baldwin-Iberia-Sharkey soil association but is specifically mapped as Coteau silt loam, which normally develops in loess on terrace uplands (*USDA 1977:33*). Given these considerations it is unlikely that in-situ archeological materials prior to the Dalton-San Patrice milieu would be present in surficial deposits.

A backhoe trench was excavated in northern portion of survey area to provide a better picture of stratigraphy (Figure 25). The somewhat darker soil was observed in the trench, but apparently does not represent a midden or buried A horizon. No cultural materials were observed in this stratum, which equates to the A horizon examined by the 50cm by 50cm shovel test. A description of the stratigraphy in the west wall profile is presented below and depicted in Figure 26.

**Stratum I** (0-10cm) is an Ap horizon of brown (10YR 4/3) silt loam; the stratum is structureless; lower boundary is clear and smooth.

**Stratum II** (10-16cm) is diagnosed as BA and is believed to reflect the development of a pan within the A horizon; it consists of brown (10YR 4/3) silt loam with faint, dark yellowish brown (10YR 4/4) mottles; the lower boundary is abrupt and smooth.



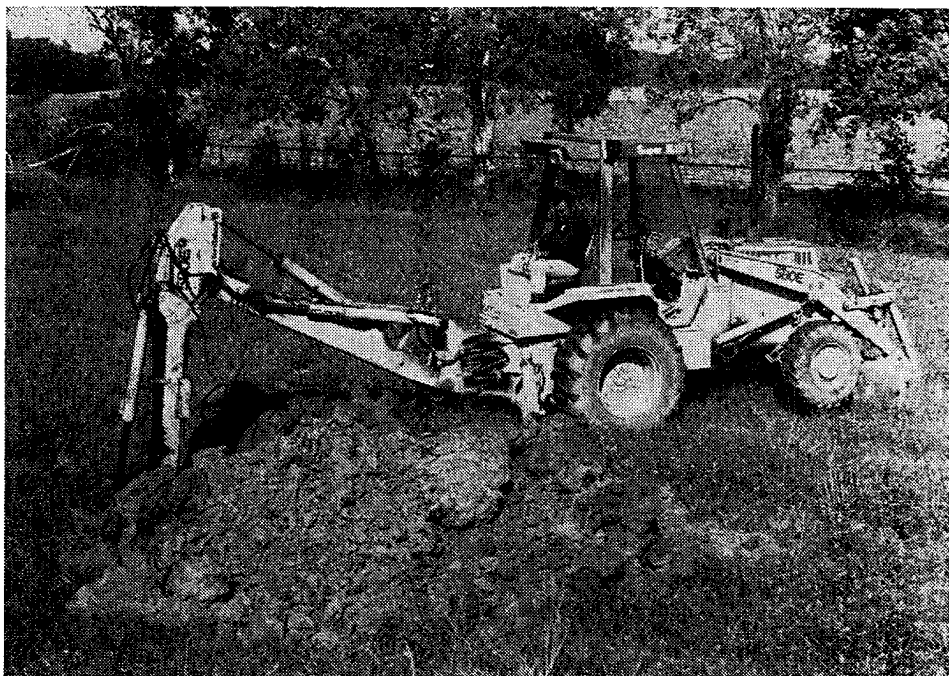


Figure 25. Photograph of backhoe trench excavation.

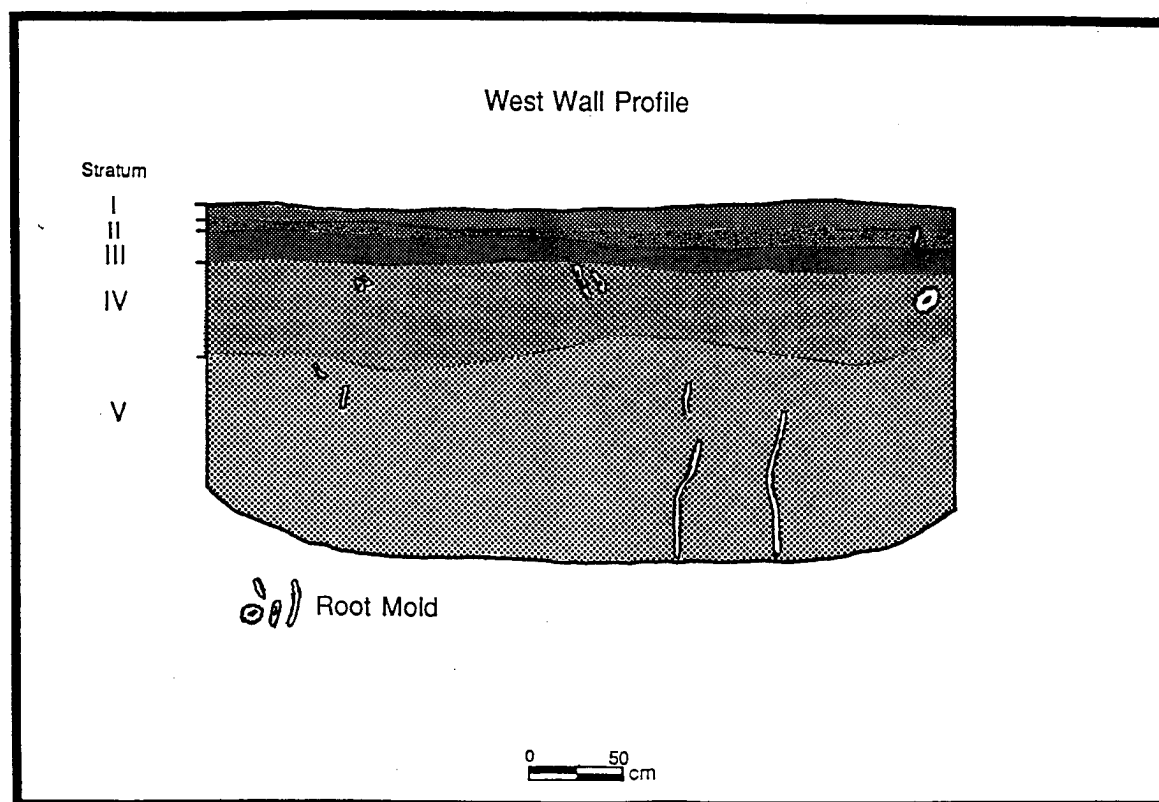


Figure 26. Backhoe trench profile, Area C.

**Stratum III** (16-30cm) consists of very dark grayish brown (10YR 3/2) sediment which varies in texture from silt loam to clay loam; the lower boundary is clear and wavy. This horizon is diagnosed as A, and seems to reflect the relatively undisturbed A horizon.

**Stratum IV** (30-72cm) is a Bt1 horizon of dark yellowish brown (10YR 4/6) clay loam with distinct, dark gray (10YR 4/1) mottles; the stratum contains a few black concretions; lower boundary is diffuse and smooth.

**Stratum V** (72-188cm) is a Bt2 horizon of yellowish brown (10YR 5/6) clay loam with dark grayish brown (10YR 4/2) mottles; some vertical root casts are present as are black concretions associated with strong brown (7.5YR 5/6) to yellowish brown (10YR 4/6) stains; the lower boundary was not observed.

This area is mapped as Coteau Silt Loam in (USDA 1977:33); the agreement of this profile with the typical profile is fair to poor. Coteau and similar soils are derived from loess, which is reflected in the silty nature of the upper matrix. Three of the shovel tests displayed the pan development seen in Stratum II; the presence of pans in Coteau soils is noted in the parish soil manual (USDA 1977:13).

**Evaluation:** The results of work in Area C produced no evidence of an archeological site or historical structures. There is no evidence of any remains associated with the historic landowners identified during the archival land use research. No further work is recommended.

#### **Area D**

**Setting:** Area D is located north of Gloria Switch Road (Parish Road 96) just west of its intersection with LaJaunie Road. There is a rank 1 tributary of Bayou St. Clair to the west of the proposed disposal site (Figure 27).

Area D is in a fallow field; to the east is a cane field. The fallow portion of the field where the proposed disposal site is located is approximately 50m east-west and 150m north-south between the tributary and planted cane.

**Environment:** The fallow field is overgrown with various weeds and grasses. Chickweed is growing in the center of the field. Adjacent to the tributary of Bayou St. Clair, there are several trees, mostly willow with a few hackberry and dogwoods. Numerous tall weeds and sumac plants, as well as briars are also growing along the drainage.

In the cane field, the cane appears to have been planted in two separate episodes (Figure 28). The entire cane field is made up of immature cane, less than one meter in height. However, in the western 25m to 30m of the field, the cane is considerably smaller, less than 50cm high. This allowed for a large area to be surface surveyed since visibility was near 100%.

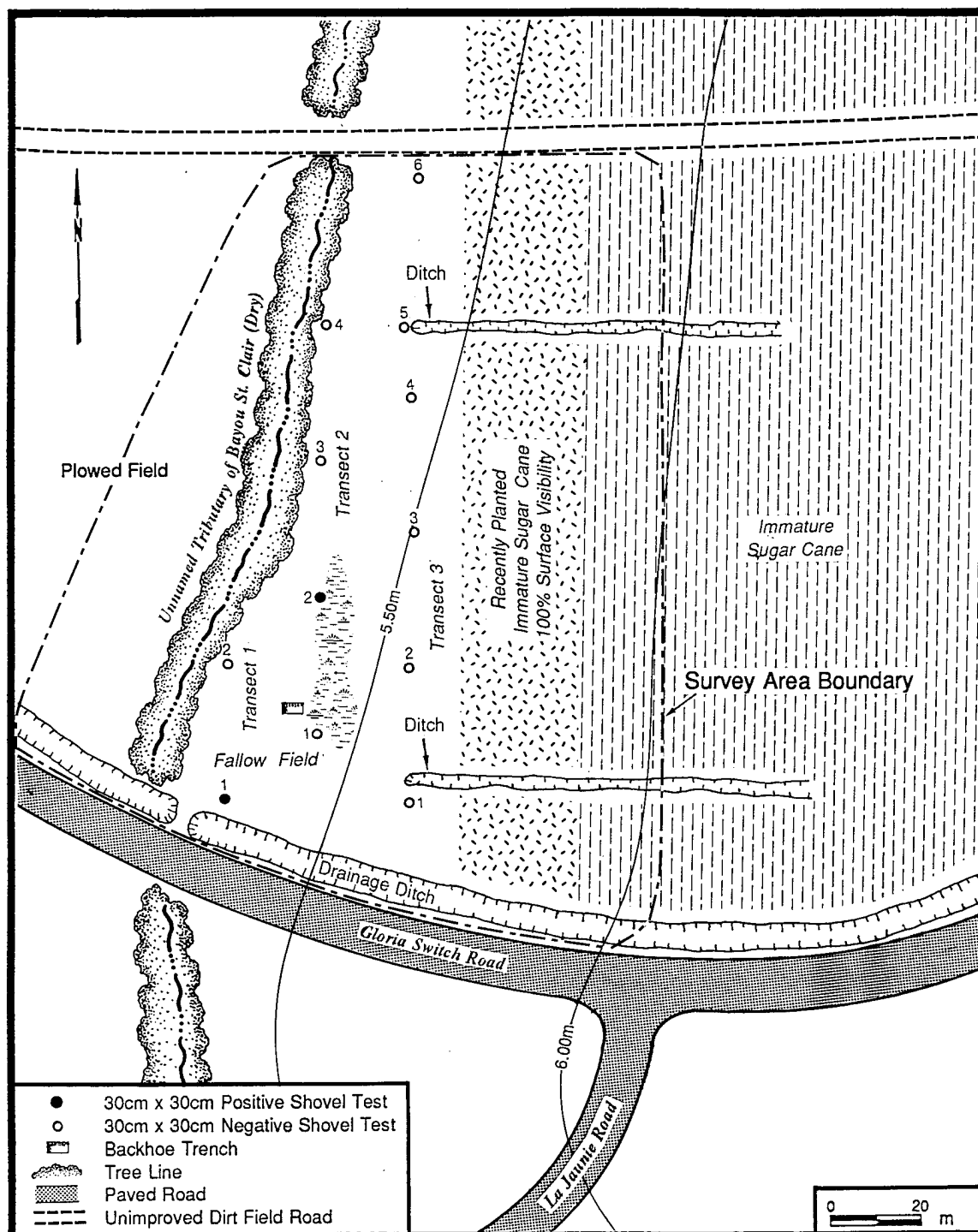
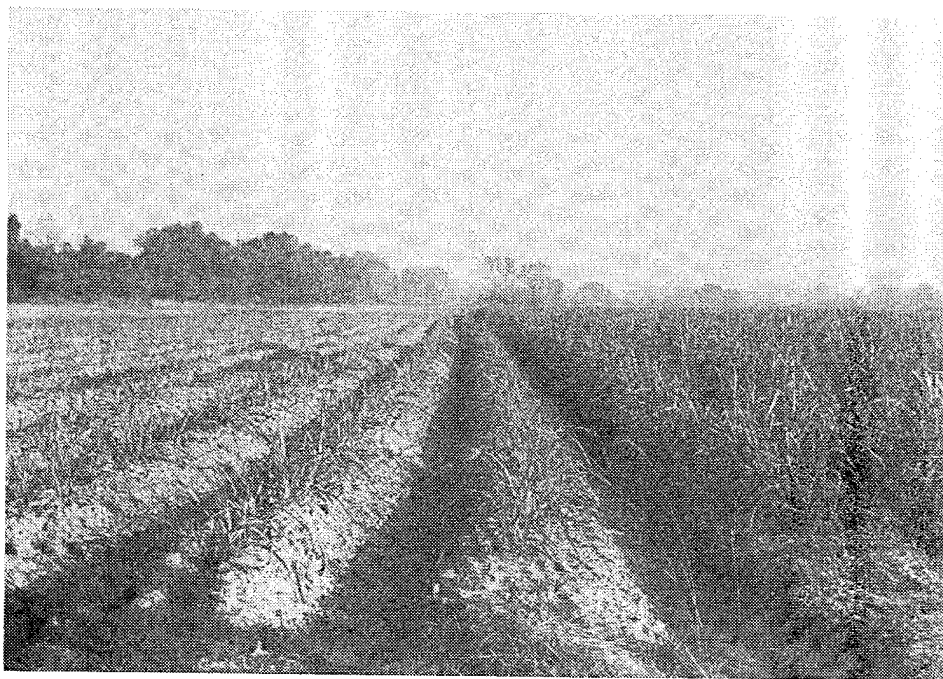


Figure 27. Sketch map of Area D.



**Figure 28. Photograph of cane field, Area D.**

**Disturbance:** The proposed site has apparently been planted before. Several old furrows were noted on the eastern portion. In addition, there are several ruts crossing the entire parcel of land. The area has also been disced several times. Agricultural activities are the only form of disturbance noted.

**Fieldwork:** Surface reconnaissance was conducted over the entire tract. Visibility was 100% in the field where smaller cane was growing and about 20-25% in the fallow field. In addition, the recently plowed field adjacent to and immediately east of the survey area was examined. This field parallels the survey area north-to-south. Surface visibility was 99%, but no cultural remains were observed.

Three transects of shovel tests were placed 20m apart in a north-south direction with shovel tests excavated at 30m intervals. Surface visibility was 100% along each transect. Due to the angle of the tributary, transects varied in length (refer to Figure 27). As a result, transect 1, the westernmost, only contains two shovel tests, while transect 2 contains four shovel tests and transect 3, the easternmost, contains six.

In all, a total of 12 shovel tests were excavated with two being positive. These produced recent historic materials that are believed to be associated with the nearby highway and

agricultural fields. Cultural materials included a piece of glass from transect 1, shovel test 1 and a small historic ceramic fragment from transect 2, shovel test 2.

**Geomorphology/Stratigraphy:** Area D sits on Lower Prairie surface near where it joins a large zone to the west which is considered to be derived from Holocene backswamp deposits (*Waterways Experiment Station, U.S. Army Corps of Engineers 1982*). Bayou St. Clair is immediately to the west and is considered to be within the Baldwin-Sharkey-Iberia association area, but is specifically mapped as Coteau silt loam in the Lafayette Parish soil manual (*USDA 1977*). Coteau and the similar Patoutville soils are developed in loessal deposits. This part of the Prairie surface is covered with loessal deposits, which are up to 20 feet thick in this part of Lafayette Parish. Based on these factors, no archeological materials found in surficial deposits in survey Area D are likely to antedate the Dalton-San Patrice milieu.

A backhoe trench was excavated in the south central portion of the project area. The trench produced no artifacts or evidence of cultural strata. The profile is depicted in Figure 29; a description of the stratigraphy in the south wall follows.

**Stratum I** (0-35cm) is an Ap horizon of brown (10YR 4/3) clay loam with distinct yellowish brown (10YR 5/6) mottles; lower boundary is clear and wavy.

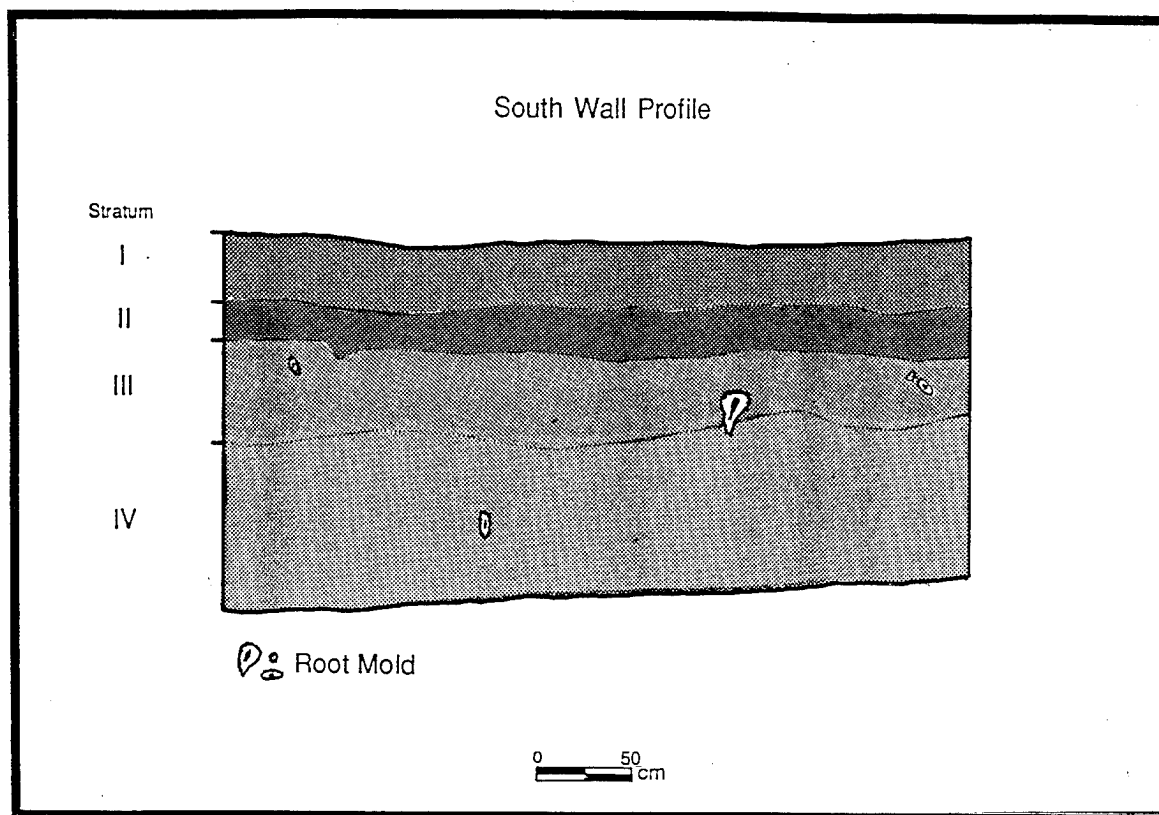
**Stratum II** (35-61cm) is an A/E horizon of very dark grayish brown (10YR 3/2) silt loam (A) with faint, discontinuous grayish brown (10YR 5/2) silt loam areas (E) near Stratum III; the lower boundary is clear and wavy.

**Stratum III** (61-116cm) is a Bt horizon of variegated dark grayish brown (10YR 4/2) and yellowish brown (10YR 5/6) clay loam with black concretions; lower boundary is gradual and wavy.

**Stratum IV** (116-187cm) is a BC horizon of grayish brown (10YR 5/2) clay loam with many, medium, distinct, dark yellowish brown (10YR 4/4-6) and brown (7.5YR 4/4) mottles; black concretions are also present; the lower boundary was not observed.

The soils in this area are mapped as Coteau silt loam. Although this profile is similar to that of the Area C trench, its resemblance to the Coteau series is approximate at best. It is more like a Patoutville series soil; Patoutville is a common inclusion in Coteau mappings (*USDA 1977*).

**Evaluation:** The field investigations in Area D revealed no evidence of either a prehistoric or historic site. Again, there are no remains associated with any of the landowners identified in the land use study. The area has been used for recent dumping, and recent discard was observed. In the absence of any cultural remains other than the recent trash, no further work is recommended.



**Figure 29. Backhoe trench profile, Area D.**

#### **Area F**

**Setting:** This proposed disposal area is located just south of a tributary of Bayou Pont Brule. The terrain rises to the south, while to the north it remains level. An improved dirt road runs along the southern boundary of the area.

The proposed disposal site is centered around a low-lying area, a large depression which contains several deeper depressions (Figure 30). The landowner, Mr. Richard, stated that the depression was created by dynamite. The previous landowner allegedly used the explosives to create the large hole to provide a more reliable water source for cattle. However, Mr. Richard said this was what he was told, and he did not know it for a fact. Regardless, the depression does not appear natural.

**Environment:** The area is mainly open pasture except around the depression and the tributary (Figure 31). Around the depression, several hardwoods are growing including oak, willow, and maple. In addition, cypress are also scattered among the hardwoods. North of the project area is a tree line with much of the same type of vegetation. In fact, in both areas the upper canopy keeps the secondary vegetation rather thin.

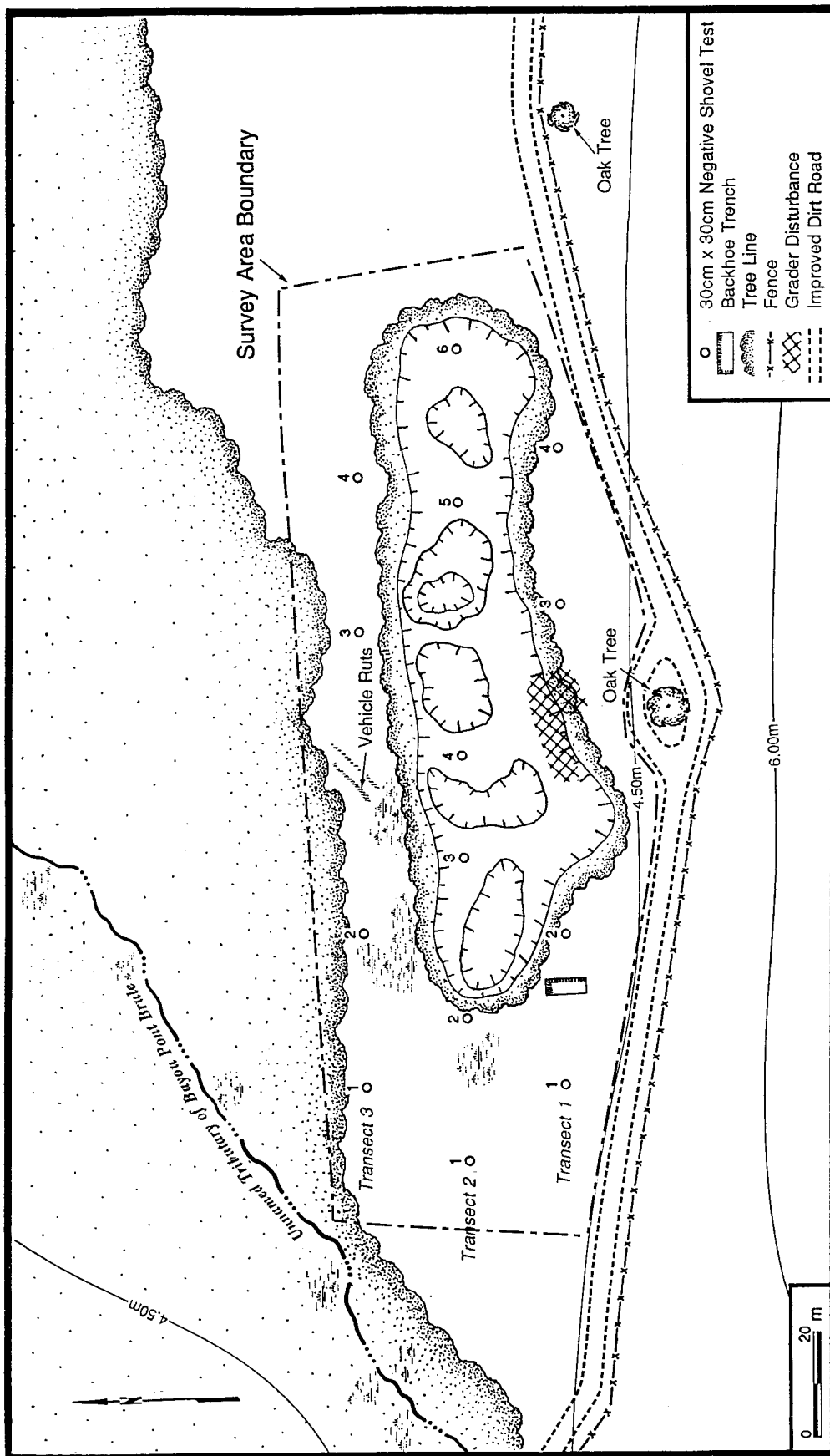
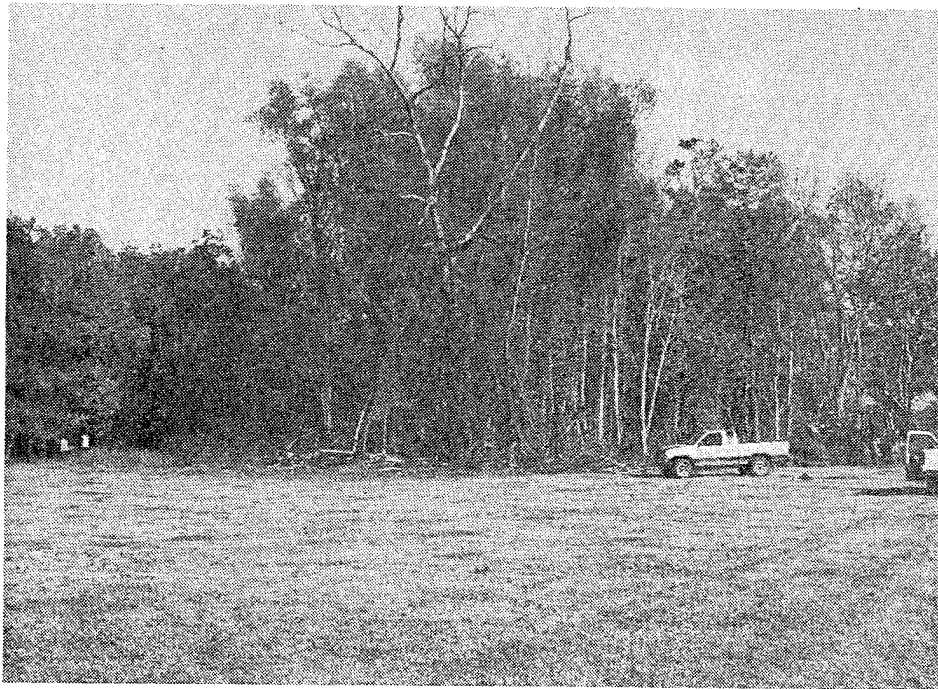


Figure 30. Sketch map of Area F.



**Figure 31. Photograph of Area F.**

**Disturbance:** Disturbance to the area appears to be confined to agricultural activities as well as recent dumping of a small amount of household garbage and cut trees.

**Fieldwork:** The proposed disposal site was investigated with three east-west transects 20m apart and with shovel tests excavated at 30m intervals where feasible; for some shovel tests the interval had to be shifted to avoid disturbance in the area of the depression. A total of 14 shovel tests was excavated. None produced any cultural remains.

**Geomorphology/Stratigraphy:** Area F is located on a feature believed to be an abandoned and filled-in Mississippi River channel of Holocene age (*Waterways Experiment Station, U.S. Army Corps of Engineers 1982*). Bayou Pont Brule is just north of the survey tract, and is also in the filled-in channel, but is vastly underfit. The general locale is considered to be part of the Baldwin-Iberia-Sharkey association, and clayey soils of the Sharkey and Baldwin series are mapped in the site area (*USDA 1977*). Given these considerations it is unlikely that in-situ deposits older than 6700 B.P. would be found in the surficial deposits of Area F.

A backhoe trench was excavated in the western portion of the proposed disposal site. The trench yielded no artifacts, buried deposits, or cultural strata. Figure 32 depicts the trench profile; the stratigraphy observed in the east wall is described below.



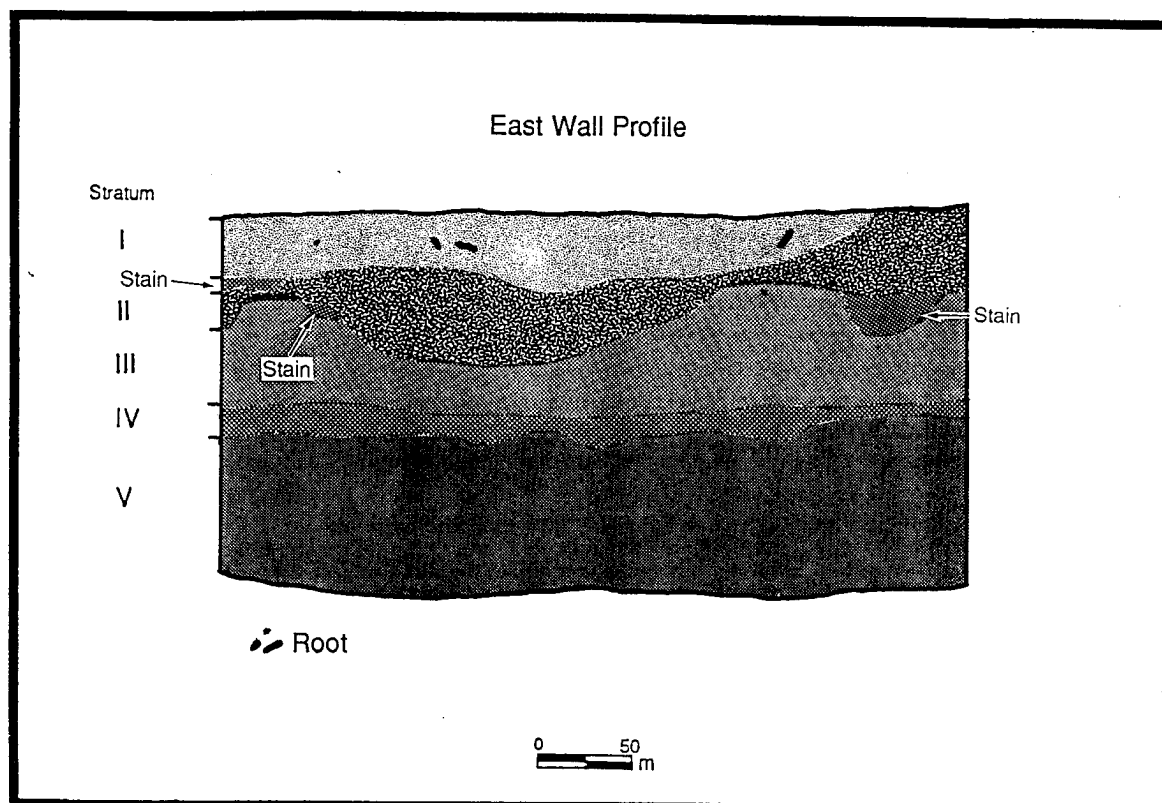
**Stratum I** (0-37cm) consists of grayish brown (2.5Y 5/2) and dark gray (10YR 4/1) clay fill, apparently derived from the water-filled depression immediately to its north; the lower boundary is abrupt and smooth.

**Stratum II** (37-72cm) is an A horizon of black (N 2/0) clay; the lower boundary is abrupt and irregular.

**Stratum III** (72-110cm) is a Btg horizon of grayish brown (2.5Y 5/2) clay with a few, fine, distinct dark yellowish brown (10YR 4/4) mottles; the lower boundary is clear and smooth.

**Stratum IV** (110-125cm) is diagnosed as BCg; it consists of dark yellowish brown (10YR 3/6) to olive brown (2.5Y 4/4) silty clay; the lower boundary is clear and wavy.

**Stratum V** (125-200cm) is a Cg horizon; it consists of dark gray (5Y 5/1) clay, with distinct, dark brown (10YR 3/3) mottles. The lower boundary was not reached.



**Figure 32. Backhoe trench profile, Area F.**

Baldwin and Sharkey soils are indicated on the Lafayette Parish soil map. This profile has a stronger resemblance to Sharkey clay, which is described as having a clay texture throughout its profile. A soil sample site mapped as Sharkey is 200 to 300m north of Area F (*USDA 1977: Sheet 5, inset*). Sharkey soils are adjacent to Teche natural levees, developing in clayey alluvium (*USDA 1977:37*)

**Evaluation:** There is no evidence of either archeological deposits nor structural remains to consider in terms of adverse effect or effect. No further work is recommended in Area F.

## CHAPTER EIGHT

### SUMMARY AND MANAGEMENT RECOMMENDATIONS

The investigations of the four proposed disposal areas resulted in negative findings in terms of historic properties that may be or are eligible for nomination to the NRHP. Looking at the reasons for the absence of prehistoric sites, some comments are in order.

Three of the four areas are located near water; these include Areas B, D, and F. Area C is 400m from both Bayou St. Clair and one of its tributaries; the latter actually flows immediately by Area D. Distance from water may be one of the reasons that Area C was not occupied in prehistory.

In the case of Area F, although near water, its setting is not conducive to prehistoric settlement. The area is low-lying, generally not a characteristic of prehistoric site locations. Thus, the setting can be used to explain the absence of prehistoric use of this area.

Area D, though not spectacular, is on level terrain near water. The absence of prehistoric use of the area may simply be a reflection of preference. Prehistoric populations simply did not select this locale for settlement.

In contrast, Area B is a choice location. It is situated on a broad, flat landform at the confluence of the Vermilion River and a tributary. The setting is one that archeologists typically observe to have a high potential for prehistoric site location. Such is not, however, the case for Area B. There is absolutely no evidence of prehistoric use of the locale. *Rangia* found in the upper stratum is road fill; there is no primary deposition of *Rangia* anywhere in Area B. Why Area B does not exhibit any indication that it was settled in prehistory is unknown. Perhaps the historic settlement of the area has been so extensive and disturbing as to have obliterated all traces of earlier occupations. Perhaps, at no time in prehistory was there any heavy competition for land in the general region and some excellent looking settings were simply not occupied. We have no answers, but the lack of prehistoric remains is clear.

With regard to the historic occupation, the background research reveals ownership of the tracts encompassing these areas back to the 1700s. Our survey did not, however, identify any historic artifacts that are anything but recent discard or, in the case of Area B, post-1920s material associated with the structure. The previous owners of these properties, particularly those who owned the land before the Civil War, had large holdings. These areas are mentioned in reference to "estate" and "plantation." The specific locations of structures and main buildings are unknown. It is probable that the proposed disposal areas were part of the fields or other lands not utilized for construction sites in historic times.

The results of this survey revealed the presence of no historic properties. In view of the negative findings, we recommend no further cultural resources work.

## BIBLIOGRAPHY

- Allain, Mathe and Vincent H. Cassidy  
1967 The Attakapas Territory, 1699-1724. **Attakapas Gazette** 2:31-34.
- 1968 Blanpain, Trader among the Attakapas. **Attakapas Gazette** 3:32-38.
- Aten, Lawrence E.  
1983 **Indians of the Upper Texas Coast.** Academic Press, New York.
- Barde, Alexandre  
1981 **The Vigilante Committees of the Attakapas: An Eyewitness Account of Banditry and Backlash in Southwest Louisiana.** Translated by Henrietta Guilbeau Rogers. Annotated and edited by David C. Edmonds and Dennis Gibson. Acadiana Press, Lafayette
- Barry, R.G.  
1983 Late-Pleistocene Climatology. In **Late Quaternary Environments of the United States**, Volume I, the Late Pleistocene, 391-407. H. E. Wright, Jr, editor. Minneapolis: University of Minnesota Press.
- Brasseaux, Carl A.  
1987 **The Founding of New Acadia: The Beginnings of Acadian Life in Louisiana, 1765-1803.** Louisiana State University Press, Baton Rouge.
- 1992 **Acadian to Cajun, Transformation of a People, 1803-1877.** University Press of Mississippi. Jackson.
- Campbell, L. Janice, James R. Morehead, Prentice M. Thomas, Jr., James H. Mathews and Joseph P. Meyer  
1994a Fort Polk-7: The results of a seventh program of site testing at ten sites, Fort Polk Military Reservation, Vernon Parish, Louisiana. **Prentice Thomas and Associates, Inc., Report of Investigations No. 234.**
- 1994b Fort Polk-9: The results of a ninth program of site testing at ten sites, Fort Polk Military Reservation, Vernon Parish, Louisiana. **Prentice Thomas and Associates, Inc., Report of Investigations No. 243.**
- Cazaudebat, Jane  
1979 Grand Prairie, 1803-1853. **Attakapas Gazette** 14: 174-183.

Coastal Environments, Inc.

1977 **Cultural Resources Evaluation of the Northern Gulf of Mexico Continental Shelf.** Interagency Archeological Services, Office of Archeology and Historic Preservation, National Park Service, United States Department of the Interior. Washington D.C.

1982 Cultural Resources Survey of South College Road Extension, Pinhook Road-Kaliste Saloom Road, Lafayette Parish. Ms. on file, Louisiana Division of Archeology, Baton Rouge.

Conrad, Glenn R.

1990 **Land Records of the Attakapas, Volume I, The Attakapas Domesday Book, Land Grants, Claims and Confirmations in the Attakapas District, 1764-1826.** Center for Louisiana Studies, University of Southwestern Louisiana, Lafayette.

1992 **Land Records of the Attakapas District, Volume II, Part I, Conveyance Records of Attakapas County, 1804-1818.** Center for Louisiana Studies, University of Southwestern Louisiana, Lafayette.

1993 **Land Records of the Attakapas District, Volume II, Part II, Attakapas - St. Martin Estates, 1804-1818.** Center for Louisiana Studies, University of Southwestern Louisiana, Lafayette.

Crane, Verner W.

1928 **The Southern Frontier, 1670-1732.** Duke University Press. Durham.

Cry, G. W.

1978 Surface Waters of the Lower Mississippi River Region. **Geoscience and Man** 19:65-73.

Davis, M. B.

1976 Pleistocene Biogeography of Temperate Deciduous Forest. **Geoscience and Man** 13:13-26.

Delcourt, P. A. and H. R. Delcourt

1983 Late Quaternary Vegetational Dynamics and Community Stability Reconsidered. **Quaternary Research** 19:265-271.

Dincauze, D.

1993 Fluted Points in the Eastern Forests. In **From Kostenki to Clovis: Upper Paleolithic-Paleo-Indian Adaptations.** O. Soffer and N. D. Praslov, eds. Chapter 20:279-292. New York: Plenum Press.

- Dismukes, J. Philip  
1972 **The Center: A History of the Development of Lafayette, Louisiana.** City of Lafayette, Louisiana.
- Dyer, J. O.  
1917 **The Lake Charles Attakapas (Cannibals), Period 1817-1820.** Published by the Author, Galveston.
- Edmonds, David C.  
1979 **Yankee Autumn in Acadiana: A narrative of the Great Texas Overland Expedition through Southwestern Louisiana.** Acadiana Press, Lafayette.
- Ford, James A. and George I. Quimby, Jr.  
1945 **The Tchefuncte Culture, An Early Occupation in the Lower Mississippi Valley.** Memoir No. 2. Society for American Archeology, Washington, D.C.
- Ford, James A. and C. H. Webb  
1956 Poverty Point, a late archaic site in Louisiana. **Anthropological papers of the American Museum of Natural History** 46(1).
- Foss, J. E., F. P. Miller and A. var. Segovia  
1985 **Field Guide to Soil Profile Description and Mapping.** Soil Resources International, Moorhead, Minnesota.
- Gagliano, Sherwood M.  
1970 Progress Report, Archeological and Geological Studies at Avery Island, 1968-1970. Ms. on file, Coastal Studies Institute, Louisiana State University, Baton Rouge.
- Gagliano, Sherwood M. and Hiram F. Gregory, Jr.  
1965 A Preliminary Survey of Paleo-Indian Points from Louisiana. **Louisiana Studies** 4(1): 62-77.
- Gagliano, S. M. and B. G. Thom  
1967 Deweyville Terrace, Gulf and Atlantic Coasts. Louisiana State University, Coastal Studies Institute, **Coastal Studies Series, Bulletin** 1.
- Gertjeansen, Doyle J., J. Richard Shenkel, and J. O. Snowden  
1983 Laboratory Simulation of Tchefuncte Period Ceramic Vessels from the Pontchartrain Basin. **Southeastern Archeology** 2 37-63.
- Gibson, Jon L.  
1970 The Paleo-Indian Era in Louisiana. **Louisiana Heritage**. 2(3): 18-19, 38.

Gibson, Jon L. (cont.)

- 1974a **The Tchefuncte Culture in the Bayou Vermilion Basin, South Central Louisiana: A Developmental Case Study.** **Bulletin of the Texas Archeological Society** 45: 67-95.
- 1974b (untitled, report of impact of West Congress Street Extension project, City of Lafayette, on cultural resources). Ms. on file, Office of the Mayor, Lafayette.
- 1975a **The Prehistory of Acadiana. In The Culture of Acadiana: Trend and Tradition in South Louisiana**, edited by Steven L. DelSesto and Jon L. Gibson, pp. 16-40. University of Southwestern Louisiana, Lafayette.
- 1975b (untitled, report of archeological survey of proposed sewerage system, District 6, Lafayette, Louisiana). Ms. on file with author, Lafayette.
- 1976a **Archeological Survey of Bayou Teche, Vermilion River, and Freshwater Bayou.** Report No. 2. Center for Archeological Studies, University of Southwestern Louisiana, Lafayette.
- 1976b (untitled, report on archeological survey of proposed East Pine Street Extension-Southern Pacific Railroad to Teurlings Drive-East Pine Street to LA 94 project, Lafayette Parish). Ms. on file, Office of the Mayor, Lafayette.
- 1976c Archeological Survey of the Lafayette Municipal Airport, Lafayette, Louisiana. Ms. on file, Domingue, Szabo, and Associates Inc., Lafayette.
- 1977 Cultural Resources Survey of East Pine Street Extension, City of Lafayette, Louisiana. Ms. on file, Lafayette Public Works Department, Lafayette.
- 1978a **Archeological Survey of the Lower Atchafalaya Region, South Central Louisiana.** University of Southwestern Louisiana, Center for Archeological Studies, Report Number 5.
- 1978b Cultural Resources Survey of the Proposed Sewerage System Improvements for the Town of Scott, Lafayette Parish, Louisiana. Ms. on file, Dominique, Szabo, and Associates Inc., Lafayette.
- 1979 Poverty Point Trade in South Central Louisiana: An Illustration from Beau Rivage. **Louisiana Archeology** 4 for 1977: 91-116.
- 1982 **Archeology and Ethnology on the Edges of the Atchafalaya Basin, South Central Louisiana.** Report PD-RC-82-04. U.S.Army Corps of Engineers, New Orleans.



Gibson, Jon L. (cont.)

- 1983 Statistical Probabilities for Archeological Sites in the Upper Vermilion Bayou Watershed, South Central Louisiana. Ms. on file, U.S. Soil Conservation Service, Alexandria.
- 1984 Cultural Resources Survey of High Technology Industrial Center, Lafayette, Louisiana. Ms. on file, Lafayette Harbor, Terminal, and Industrial Development District, Lafayette.
- 1986a Cultural Resources Investigation of Proposed Riverplace Adult Community Center on Vermilion River, Lafayette, Louisiana. Ms. on file, Puller Mortgage Association Inc., Indianapolis.
- 1986b Cultural Resources Survey of River Oaks Flood Protection Project, Phase II, Lafayette, Louisiana. Ms. on file, Domingue, Szabo, and Associates Inc., Lafayette.
- 1988 Paleoindian-Epipaleoindian Transition along the Western Edge of the Lower Mississippi Valley. Paper presented at the 14th annual meeting of the Louisiana Archeological Society, Bossier City; Ms on file with author, Lafayette.
- 1989 Poverty Point Earthworks: A Tale of Loess and Ambition in the Louisiana Delta. In *Mounds, Embankments, and Ceremonialism in the Mid-South*, edited by Robert Mainfort. Archeological Report. Mississippi Department of Archives and History, Jackson (in press).
- 1990a **Archeological Survey of the Mid-Teche Ridge, South Louisiana: From Bayou Gerimond to Bayou Portage Guidry.** Center for Archeological Studies, University of Southwestern Louisiana, Lafayette.
- 1990b Cultural Resources Survey of the National Wetlands Research Center Tract, Lafayette, Louisiana. Ms. on file, Perkins, Guidry, Beazley, and Ostteen Inc., Lafayette.
- 1991a Cultural Resources Investigations. In *I-49 Connector Phase I, Line and Grade Study and Draft Environmental Impact Statement*. Ms., prepared by HNTB Inc., on file with Louisiana Department of Transportation and Development, Baton Rouge.
- 1991b Catahoula—an Amphibious Poverty Point Period Manifestation in Eastern Louisiana. In *The Poverty Point Culture, Local Manifestations, Subsistence Practices, and Trade Networks*, edited by Kathleen M. Byrd, pp.61-87. Vol. 29. **Geoscience and Man**, Louisiana State University, Baton Rouge.

Gibson, Jon L. (cont.)

- 1994a Over the Mountain and Across the Sea: Regional Poverty Point Exchange. In **Exchange in the Lower Mississippi Valley and Contiguous Areas at 1100 B.C.**, edited by Jon L. Gibson. Louisiana Archeology No. 21. Louisiana Archeological Society, Lafayette, in press.
- 1994b Empirical Characterization of Exchange Systems in Lower Mississippi Valley Prehistory. In **Prehistoric Exchange Systems in North America, Volume II**, edited by Timothy G. Baugh and Jonathon E. Ericson. Plenum Press, in press. Ms. 1989.
- 1994c Before their Time? Early Mounds in the Lower Mississippi Valley. **Southeastern Archeology** 13, in press.
- 1995 **Poverty Point**. Anthropological Study No. 7. 2nd ed., revised. Louisiana Archeological Survey and Antiquities Commission, Baton Rouge.

Gibson, Jon L. and Layton J. Miller

- 1973 The Trappey Mastodon, Lafayette Parish, Louisiana. **Research Series (Anthropology)** No. 27. University of Southwestern Louisiana, Lafayette.

Gibson, Jon L. and J. Richard Shenkel

- 1988 Louisiana Earthworks: Middle Woodland and Predecessors. In **Middle Woodland Settlement and Ceremonialism in the Mid-South and Lower Mississippi Valley**, edited by Robert C. Mainfort, pp. 7-18. Archeological Report No. 22. Mississippi Department of Archives and History, Jackson.

Goodwin and Associates, Inc.

- 1985 **An archeological and historic sites inventory of Bayou Teche between Franklin and Jeanerette Louisiana**. Vol. III.

Griffin, Harry L.

- 1974 **Attakapas Country: History of Lafayette Parish**. Pelican Publishing. Gretna, LA.

Gulf South Research Institute

- 1976 History and Archeology, Supplement to Environmental Effect Assessment of the Lafayette Loop. Ms. on file, Louisiana Department of Transportation and Development, Baton Rouge.

Guy, John and Joel D. Gunn

- 1983 Settlement Patterns in the Fort Polk Region. **Louisiana Studies** 4: 279-323.

- Haynes, C. V. Jr.  
 1991 Clovis-Folsom Geochronology and Climatic Change. In **From Clovis to Kostenki: Upper Paleolithic--Paleo-Indian Adaptations**. O. Soffer and N. D. Praslov, editors; Chapter 16:219-239. New York: Plenum Press.
- Howe, H. V. and C. K. Moresi  
 1931 **Geology of Lafayette and St. Martin Parishes**. Louisiana State Department of Conservation, Bureau of Scientific Research and Statistics, Minerals Section. Baton Rouge.
- Jeter, M. D., J. C. Rose, G. I. Williams, Jr. and A. M. Harmon  
 1989 **Archeology and Bioarcheology of the Lower Mississippi Valley and Trans-Mississippi South in Arkansas and Louisiana**. Arkansas Archeological Survey, Research Series, Number 37.
- John, Elizabeth A.H.  
 1975 **Storms Brewed in Other Men's Worlds: The Confrontation of Indians, Spanish, and French in the Southwest, 1540-1795**. University of Texas Press. College Station.
- Kniffen, Fred B., Hiram F. Gregory, and George A. Stokes.  
 1986 **Historic Indian Tribes of Louisiana**. Louisiana State University Press, Baton Rouge.
- Lenzer, J. P.  
 1982 Geomorphology and Geomorphic History of the Atchafalaya Basin. In **Archeology and Ethnology of the Atchafalaya Basin: a Cultural Resources Survey of the Atchafalaya Basin Protection Levees**. Prepared for Department of the Army, New Orleans District, Corps of Engineers. New Orleans.
- Lundelius, E. L. Jr.  
 1976 Vertebrate Paleontology of the Pleistocene: an Overview. **Geoscience and Man** 13:45-59.
- Lundelius, E. L., Jr., R.W. Graham, E. Anderson, J. Guilday, J. A. Holman, D. W. Steadman, and S. D. Webb  
 1983 Terrestrial Vertebrate Faunas. In **Late Quaternary Environments of the United States, Volume I: The Late Pleistocene**:311-353, H. E. Wright, ed. Minneapolis: University of Minnesota Press.
- Marckese, Thomas A.  
 1993 A Clovis Point Found at Cote Blanche Island. **Louisiana Archeology** 20:165-167.

- Martin, P. S.  
 1967 Prehistoric Overkill. In P. Martin and H. Wright, eds. **Pleistocene Extinctions: the Search for a Cause**. New Haven: Yale University Press.
- Martin P. S. and R. Klein, eds.  
 1984 **Quaternary Extinctions**. Tuscon: University of Arizona Press.
- Martin, L. D. and J. B. Martin  
 1984 The Effect of Pleistocene and Recent Environments on Man in North America. **Current Research** 1:73-75. Center for the Study of Early Man, University of Maine at Orono.
- McIntire, William G.  
 1958 **Prehistoric Indian Settlements of the Changing Mississippi River Delta**. Coastal Studies Series, No. 1. Louisiana State University, Baton Rouge.
- Menn, Carl J.  
 1964 **Large shareholders of Louisiana**. Pelican Publishing. New Orleans.
- Morehead, James R., Prentice Thomas, L. Janice Campbell, James H. Mathews and Joseph P. Meyer  
 1995a Fort Polk-12: The results of a twelfth program of site testing at ten sites Fort Polk Military Reservation, Vernon Parish, Louisiana. **Prentice Thomas and Associates, Inc., Report of Investigations** 249.
- 1995b Fort Polk-13: The results of a thirteenth program of site testing at then sites Folk Polk Military Reservation, Vernon Parish, Louisiana. **Prentice Thomas and Associates Inc., Report of Investigations** 252.
- 1995c Fort Polk-14: The results of a fourteenth program of site testing at then sites Folk Polk Military Reservation, Sabine and Vernon Parishes, Louisiana. **Prentice Thomas and Associates Inc., Report of Investigations** 253.
- Mossa, J. and W. J. Autin, editors  
 1989 **Quaternary Geomorphology and Stratigraphy of the Florida Parishes, Southeastern Louisiana: a Field Trip**. Louisiana Geological Survey, Guidebook Series, Number 5.
- Muller, R. A. and J. E. Willis  
 1978 Climatic Variability in the Lower Mississippi Valley. **Geoscience and Man** 19:55-63.

- Neitzel, Robert S.  
1979 Archeological Survey, Four-Laning of Kaliste Saloom Road Extension, Lafayette, Lafayette Parish, Louisiana. Ms. on file, Louisiana Division of Archeology, Baton Rouge.
- Phillips, Philip  
1970 **Archeological Survey in the Lower Yazoo Basin, Mississippi, 1949-1955.** Papers Vol. 60. Peabody Museum of Archeology and Ethnology, Harvard University, Cambridge.
- Pielou, E. C.  
1991 **After the Ice Age.** Chicago: University of Chicago Press.
- Post, Lauren C.  
1974 **Cajun Sketches, From the Prairies of Southwest Louisiana.** Louisiana State University Press, Baton Rouge.
- Rivet, Philip G.  
1975a Archeological Survey of Vermilion River Bridge and Approaches at Pinhook Road, Route LA 182, Lafayette Parish, Louisiana. Ms. on file, Louisiana Department of Transportation and Development, Baton Rouge.  
  
1975b Archeological Survey of LA 3171 from Junction I-10 to Junction U. S. 190, Lafayette and St. Landry Parishes, Louisiana. Ms. on file, Louisiana Department of Transportation and Development, Baton Rouge.
- Ruhe, Robert V.  
1983 Depositional environment of Late Wisconsin loess in the mid-continental United States. pp130-137 in **Late Quaternary Environments of the United States.**
- Saucier, R. T.  
1974 Quaternary Geology of the Lower Mississippi Valley. **Arkansas Archeological Survey, Research Series, Number 6.**  
  
1976 Sand Dunes and Related Aeolian Features of the Lower Mississippi Valley. **Geoscience and Man** 19:23-40.
- Saunders, Joe W. and E. Thurman Allen  
1994 Hedgepeth Mounds, an Archaic Mound Complex in North-Central Louisiana. **American Antiquity** 59:471-489.
- Snead, J. I. and R.P. McCullough  
1984 **Geological Map of Louisiana.** Baton Rouge: Louisiana Geological Survey.

Soil Survey Staff

- 1988 **Keys to Soil Taxonomy.** Agency for International Development, United States Department of Agriculture, Soil Management Support Services, **SMSS Technical Monograph, Number 6.**

Swanton, John R.

- 1911 **Indian Tribes of the Lower Mississippi Valley and Adjacent Coast of the Gulf of Mexico.** **Bureau of American Ethnology Bulletin 43.**

Taintor Bros. and Merrill

- 1848 **Map of the state of Louisiana.** Published by Taintor Bros. and Merrill. New York.

Taylor, Joe G.

- 1974 **Louisiana Reconstructed, 1863-1877.** Louisiana State University Press, Baton Rouge.

Thomas and Associates, Inc.

- 1992 Site testing at ten sites on Peason Ridge, Fort Polk Military Reservation, Sabine Parish, Louisiana. **Prentice Thomas and Associates Report of Investigations 215.**

Thomas, Prentice, J. Morehead, James H. Mathews and L. Janice Campbell

- 1992a The results of a second program of site testing at ten sites on Peason Ridge, Fort Polk Military Reservation, Sabine Parish, Louisiana. **Prentice Thomas and Associates Report of Investigations 218.**

Thomas, Prentice, Joseph Meyer, James R. Morehead, L. Janice Campbell, James H. Mathews

- 1992b Fort Polk-3: The results of a third program of site testing at ten sites, Fort Polk Military Reservation, Natchitoches Parish, Louisiana. **Prentice Thomas and Associates Report of Investigations 221.**

Thomas, Prentice., James R. Morehead, L. Janice Campbell, James H. Mathews, Joseph Meyer

- 1993a Fort Polk-4: The results of a fourth program of site testing at ten sites, Fort Polk Military Reservation, Natchitoches and Vernon parishes, Louisiana. **Prentice Thomas and Associates, Inc. Report of Investigations 223.**

- 1993b Fort Polk-5: The results of a fifth program of site testing at ten sites, Fort Polk Military Reservation, Natchitoches and Vernon Parishes, Louisiana. **Prentice Thomas and Associates, In., Report of Investigations 225.**

- 1993c Fort Polk-6: The results of a sixth program of site testing at ten sites, Fort Polk Military Reservation, Natchitoches and Vernon Parishes, Louisiana. **Prentice Thomas and Associates, Inc., Report of Investigations 227.**

Thomas, Prentice M., Jr., L. Janice Campbell, James H. Mathews, James R. Morehead, Joseph P. Meyer and Mark E. Stanley.

- 1993d Fort Polk-8: The results of an eighth program of site testing at ten sites Fort Polk Military Reservation, Sabine and Vernon Parishes, Louisiana. **Prentice Thomas and Associates, Inc., Report of Investigations 235.**

Thomas, Prentice., James R. Morehead, L. Janice Campbell, James H. Mathews, Joseph Meyer

- 1994a Fort Polk-10: The results of a tenth program of site testing at ten sites, Fort Polk Military Reservation, Vernon Parish, Louisiana. **Prentice Thomas and Associates, Inc., Report of Investigations 244.**

- 1994b Fort Polk-11: The results of an eleventh program of site testing at ten sites, Fort Polk Military Reservation, Vernon Parish, Louisiana. **Prentice Thomas and Associates, Inc., Report of Investigations 248.**

#### USDA

- 1974 **Soil Survey of Evangeline Parish, Louisiana.** United States Department of Agriculture, Soil Conservation Service.
- 1977 **Soil Survey of Lafayette Parish, Louisiana.** United States Department of Agriculture, Soil Conservation Service.

Usner, Daniel H., Jr.

- 1985 The Deerskin Trade in French Louisiana. In **Proceedings of the Tenth Meeting of the French Colonial Society**, edited by Philip P. Boucher. University Press of America. Boston.
- 1992 **Indians, Settlers, & Slaves in A Frontier Exchange.** University of North Carolina Press. Chapel Hill.

Waterways Experiment Station, U.S. Army Corps of Engineers

- 1982 Map of the Distribution of Alluvial Deposits, Arnaudville Louisiana 15 minute Quadrangle. United States Army Corps of Engineers.

Watts, W. A.

- 1983 Vegetational History of the Eastern United States 25,000 to 10,000 Years Ago. Pages 294-310, in **Late Quaternary Environments of the Eastern United States**, Volume I, the Late Pleistocene, 294-310, H. W. Wright, ed. Minneapolis: University of Minnesota Press.

Weinstein, Richard A.

- 1985 **Development and Regional Variation of Plaquemine Culture in South Louisiana.** Paper presented at the 6th Mid-South Archeological Conference, Starkville, Mississippi.

Whelan, James P., Jr. and George J. Castille

- 1988 A Cultural Resources Survey of Three Proposed Vermilion River Bridge Alignments in Lafayette Parish, Louisiana. Ms. of file, Louisiana Division of Archeology, Baton Rouge.

Woodward, T. P. and A. J. Gueno, Jr.

- 1941 The Sand and Gravel Deposits of Louisiana. Department of Conservation, Louisiana Geological Survey. **Geological Bulletin Number 19.**

Wright, Gavin

- 1986 **Old South, New South.** Basic Books, Inc., Publishers, New York.

Wright, H. E., Jr.

- 1976 Pleistocene Ecology-Some Current Problems. **Geoscience and Man** 13:1-12.



## ARCHIVAL SOURCES

American State Papers, Volume 2 and 4

Lafayette Parish, Clerk of Court

Act #125

Act #1478

Act #4607

Act #5404

Act #5493

Act #37751

Act #39686

Act #41553

Act #52872

Act #377430

Civil Suit #3041

Conveyance Act #14960

Conveyance Act #17556

Donation Book #2, #15013

Succession Records #96

Succession #17881

Old Board of Land Commissioners Claim #7

St. Martinville Parish, Clerk of Court

Book 1A, Old Acts, #3198

Book 24:193

Succession #164

Succession #227

## **SCOPE OF SERVICES**

October 14, 1994

**Scope of Services**  
Cultural Resources Survey  
of Four Disposal Areas along the Vermilion River,  
Bayou Teche and Vermilion River Project,  
Lafayette Parish, Louisiana

**1. Introduction.** The work to be performed under this delivery order consists of a cultural resources survey of four proposed disposal areas near the Vermilion River in Lafayette Parish. The project consists of the removal of debris and shoal material in the Vermilion River at several bridge crossings, and disposal in six proposed sites along the river's immediate banklines and adjacent areas. The proposed disposal sites have not been previously surveyed for cultural resources.

The disposal sites were visited by Corps archeologists on 28 Sep 94. The site visit revealed that two of the disposal areas (A and E) have been heavily disturbed by previous land use activities and it's very unlikely that any intact cultural resources exist in these areas. On the other hand, disposal sites B, C, D, and F are considered moderate to high potential areas for the occurrence of archeological resources. A cultural resources survey of these disposal sites is necessary to determine if significant cultural resources will be affected by the proposed work.

At present, no cultural resources are recorded within the proposed disposal areas. However, numerous known prehistoric sites are located in immediate proximity to the survey areas. These sites are located on the natural levee ridges of the Vermilion River and numerous abandoned Mississippi River channel segments, as well as Pleistocene Terrace features in the survey area. These elevated areas have a moderate to high potential for the occurrence of prehistoric archeological sites.

**2. Study Area.** The study area consists of four proposed disposal areas near the Vermilion River in Lafayette Parish. Specifically, the study area consists of disposal areas B, C, D, and F as shown on the attached maps from the October 1994 Environmental Assessment for the project (Attachment 1). The total area of the four disposal areas is less than 6 acres.

Disposal Area B is a wooded parcel on the right descending bank of the Vermilion River adjacent to the Tearlings / Larabee Pit Road Bridge. This site is an unofficial dump area for household garbage and the accumulated modern debris will make survey difficult. The site was included in the survey because of its high potential for prehistoric and historic occupations. Disposal Areas C, D, and F are similar in nature. All three are

October 14, 1994

located in small, fallow areas adjacent to sugar cane fields. All three are located some distance from the Vermilion River and are considered of moderate potential for the occurrence of archeological resources.

**3. General Nature of the Work.** The study will consist of historical and literature research relative to the study area, intensive cultural resources survey of the proposed disposal areas, and data analysis and report preparation.

**4. Study Requirements.** The study will be conducted utilizing current professional standards and guidelines including, but not limited to:

- National Register Bulletin 15 entitled, "How to Apply the National Register Criteria for Evaluation;"
- the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation as published in the Federal Register on September 29, 1983;
- Louisiana's Comprehensive Archeological Plan dated October 1, 1983; and
- The Advisory Council on Historic Preservation's regulation 36 CFR Part 800 entitled, "Protection of Historic Properties."

The study will be conducted in three phases: Historical and Literature Research, Field Survey, and Data Analysis and Report Preparation.

A. Phase 1: Historical and Literature Research. The study will begin with brief research of archeological, historical and geological literature, maps and records necessary to establish the natural and historic setting and predict the nature of the cultural resources in the study area. The status of archeological research and the nature of the resource base in the study area will be assessed through the review of pertinent literature and the records of the Louisiana Division of Archaeology.

Historical research will include literature review and review of other written, cartographic and aerial photography records sufficient to reconstruct the historic uses of the study areas. The geological research will include review of available published and unpublished data to assess landscape geomorphology.

B. Phase 2: Field Survey. Contemporaneous with the conduct of phase 1, the Contractor shall initiate the fieldwork in the four

October 14, 1994

proposed disposal areas. The intensive pedestrian survey will utilize lane spacing of 20 meters and a shovel testing interval of 30 meters in an offset pattern. Shovel tests will be approximately 30 x 30 cm in the horizontal plane and will be excavated to sterile subsoil (a minimum of 50 cm deep). The excavated soil will be screened through 1/4 inch wire mesh, where feasible. Soils which are too wet or clayey for efficient screening will be thoroughly trowel searched for artifact recognition and recovery.

In addition to the shovel testing regime, the Contractor shall also employ a backhoe to excavate exploratory trenches in the survey areas. The purposes of these trenches are to provide stratigraphic information and to identify any deeply buried cultural deposits in the study areas.

During the conduct of the survey, all sites located in the survey areas will be subject to a program of site definition to ascertain horizontal extent, depth of cultural deposits, and cultural/temporal affiliation. A datum will be established at each site location. This will be followed by a minimum of two bisecting lines (normally at 90 degree angles in the cardinal directions) of screened shovel tests outward from the site datum to define horizontal extent. Limited, controlled surface collection of artifacts will supplement artifacts located in the shovel tests. Auger tests will be placed as needed to ascertain site depth and stratigraphy. Site maps will be prepared for each site utilizing tape and compass to map important natural and cultural features, and the locations of shovel and auger tests. All shovel, auger and backhoe excavations will be immediately backfilled upon completion of archeological recordation.

At the conclusion of all required fieldwork, unexpended field time may be utilized to visit previously recorded archeological sites in the study area vicinity. The Contractor is responsible for obtaining his own rights of entry to any sites outside the designated study areas.

At a minimum, site maps will show site boundaries, locations of site datum, features and artifact scatters, locations of all subsurface testing units, and prominent natural and cultural features in the site area. Although x,y coordinates or tie-ins to benchmarks are not required, all site maps will contain adequate information to tie site data to permanent landmarks in the disposal areas. Such landmarks include property corners, junctions of road/levees, etc.

For all sites discovered during the survey, the Contractor will file state site forms with the Louisiana State Archeologist and cite the resulting state-assigned site numbers in all draft and final reports. In addition, the Contractor will submit site update forms to the State Archeologist for any new information on

October 14, 1994

previously recorded sites. These forms will correct previously filed information where appropriate and summarize the results of the present investigation. All sites located within the survey area will be recorded to scale on the project maps and the appropriate 7.5 minute quadrangle maps. The quadrangle maps will be utilized to illustrate the site forms. One copy of each site and site update form will be submitted to the COR with the draft report.

C. Phase 3: Data Analyses and Report Preparation. All data will be analyzed using currently acceptable scientific methodology. The Contractor shall catalog all artifacts, samples, specimens, photographs, drawings, etc., utilizing the format currently employed by the Louisiana State Archeologist.

All cultural resources located by the survey will be evaluated against the National Register criteria contained in Title 36 CFR Part 60.4 to assess their potential eligibility for inclusion in the National Register. The Contractor will classify each site as either eligible for inclusion in the National Register, potentially eligible, or not eligible. The Contractor shall fully support his recommendations regarding site significance. The Contractor shall also recommend detailed mitigation measures for all sites classified as eligible.

The analyses will be fully documented. Methodologies and assumptions employed will be explained and justified. Inferential statements and conclusions will be supported by statistics where possible. Additional requirements for the draft report are contained in Section 5. of this Scope of Services.

## **5. Reports:**

A. Management Summary (Phases 1 and 2). Two copies of a brief report summarizing the results of the fieldwork shall be submitted to the COR within 3 weeks after delivery order award. This report, which may be in letter format, shall accurately describe the survey methods and results. If cultural resources are located in the study areas, the Contractor shall supply sketch maps and Louisiana state site forms for each located site as well as an initial description of the site and an assessment of resource significance.

B. Draft Reports (Phases 1-3). Six copies of the draft report integrating all phases of this investigation will be submitted to the COR for review and comment within 8 weeks after delivery order award. Along with the draft reports, the Contractor shall submit:

October 14, 1994

- (1) One copy of project maps and 7.5 minute quadrangle maps marked with the locations of all sites and standing structures in the survey area;
- (2) one copy of each site, site update, and standing structure form;
- (3) three copies of the National Register Registration Forms for each site recommended as eligible for inclusion in the National Register. This documentation will contain all of the data required by NPS National Register Bulletin 16: Guidelines for Completing National Register of Historic Places Forms.

The written report shall follow the format set forth in MIL-STD-847A with the following exceptions: (1) separate, soft, durable, wrap-around covers will be used instead of self covers; (2) page size shall be 8-1/2 x 11 inches with 1-inch margins; (3) the reference format of American Antiquity will be used. Spelling shall be in accordance with the U.S. Government Printing Office Style Manual dated January 1973.

C. Final Reports. The COR will provide all review comments to the Contractor within 6 weeks after receipt of the draft reports (14 weeks after work item award). Upon receipt of the review comments on the draft report, the Contractor shall incorporate or resolve all comments and submit one preliminary copy of the final report to the COR within 4 weeks (18 weeks after work item award). Upon approval of the preliminary final report by the COR (within 1 week after submittal), the Contractor will submit 30 copies and one reproducible master copy of the final report to the COR within 22 weeks after work item award. The Contractor will also provide computer disk(s) of the text of the final report in Microsoft Word or other approved format.

Included as an appendix to the Final Report will be a complete and accurate listing of cultural material and associated documentation recovered and/or generated. In order to preclude vandalism, the final report shall not contain specific locations of archeological sites. Site specific information, including one set of project maps accurately delineating site locations, site forms, black and white photographs and maps, shall be included in an appendix separate from the main report.

## 6. Attachments:

1. Figures 3 and 4 from the October 1994 Environmental Assessment entitled Bayou Teche and Vermilion River, Louisiana: Routine Maintenance and Additional Disposal Areas

# ENVIRONMENTAL ASSESSMENT

## BAYOU TECHE AND VERMILION RIVER, LOUISIANA LAFAYETTE AND ST. MARTIN PARISH, LOUISIANA

### Routine Maintenance and Additional Disposal Areas

EA # 220

## INTRODUCTION

This Environmental Assessment (EA) has been prepared to evaluate the impacts associated with the proposed designation and use of disposal sites for sediments, debris, and trees removed from the Vermilion River, Lafayette and St. Martin Parish, Louisiana (Figure 1). This EA complements the Final Composite Environmental Impact Statement (FCEIS) for Operation and Maintenance of Three Projects in the Teche-Vermilion Basin; Bayou Teche, Bayou Teche and Vermilion River, and Freshwater Bayou, Louisiana. This FEIS was filed with the Council on Environmental Quality on February 23, 1977.

This EA is prepared in accordance with the National Environmental Policy Act of 1969, as reflected by the U.S. Army Corps of Engineers Regulation ER 200-2-2. The following sections include a discussion of the need for the proposed action, alternatives to the proposed action, significant resources, and impacts of the proposed action.

## NEED FOR THE PROPOSED ACTION

The project is needed to improve flood protection in the area. Local flooding in January 1993 has been attributed to accumulation of shoal material, snags, drift, and other debris at bridge crossings located between Mile 52 and Mile 124.8. When the project was constructed, disposal sites were designated in the navigable reach of the project (Mile 0 to Mile 52). However, no disposal sites were designated above Mile 52. Consequently, sites in the vicinity of the non-navigable reach of the project are necessary to provide disposal for the proposed maintenance activities.



